

FIG. 2

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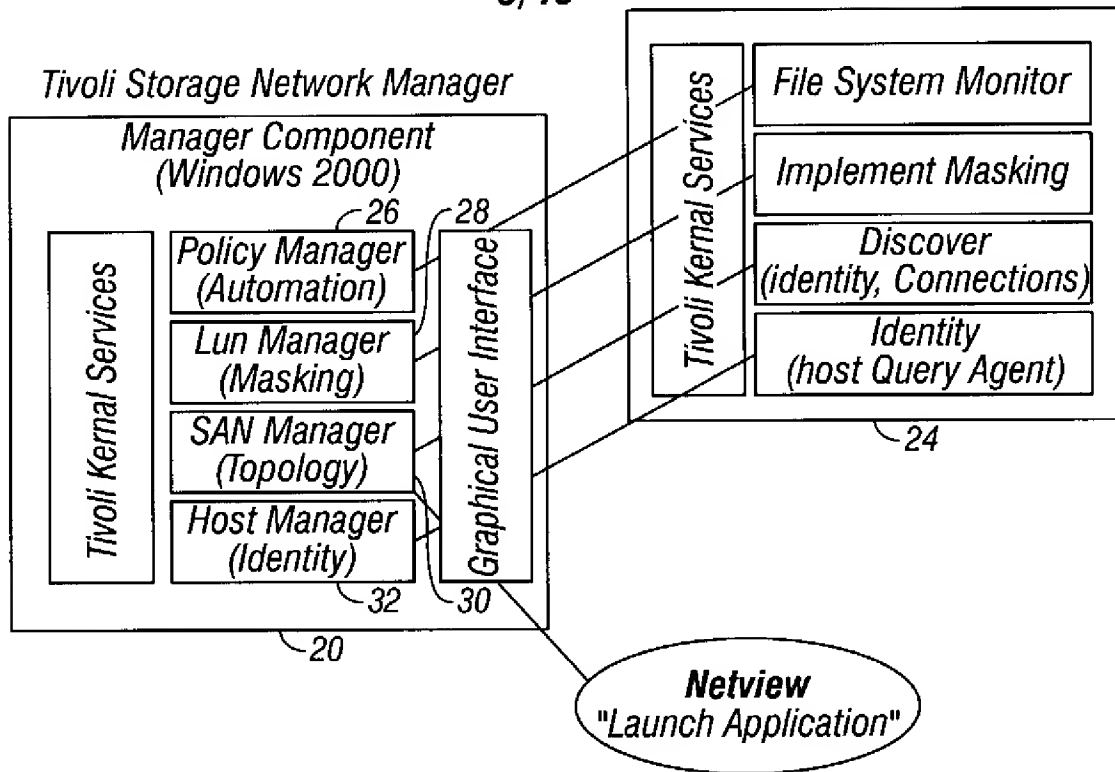


FIG. 3

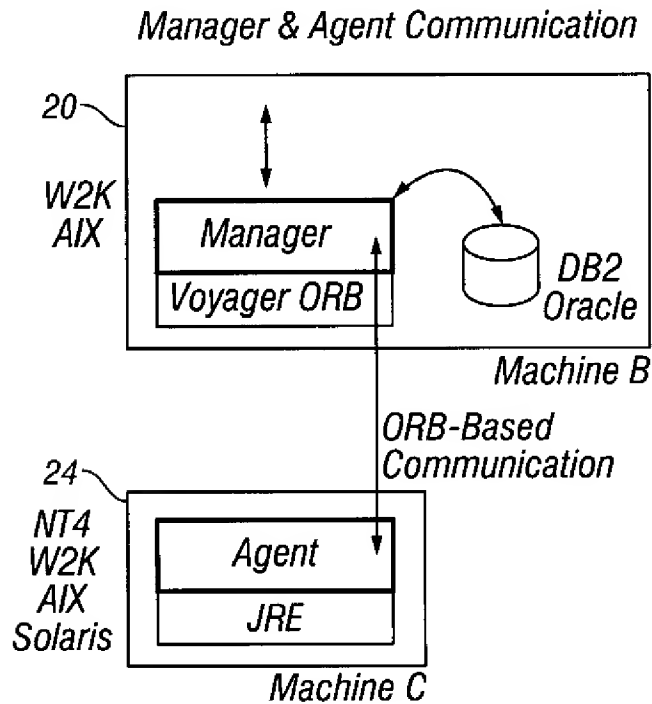


FIG. 4

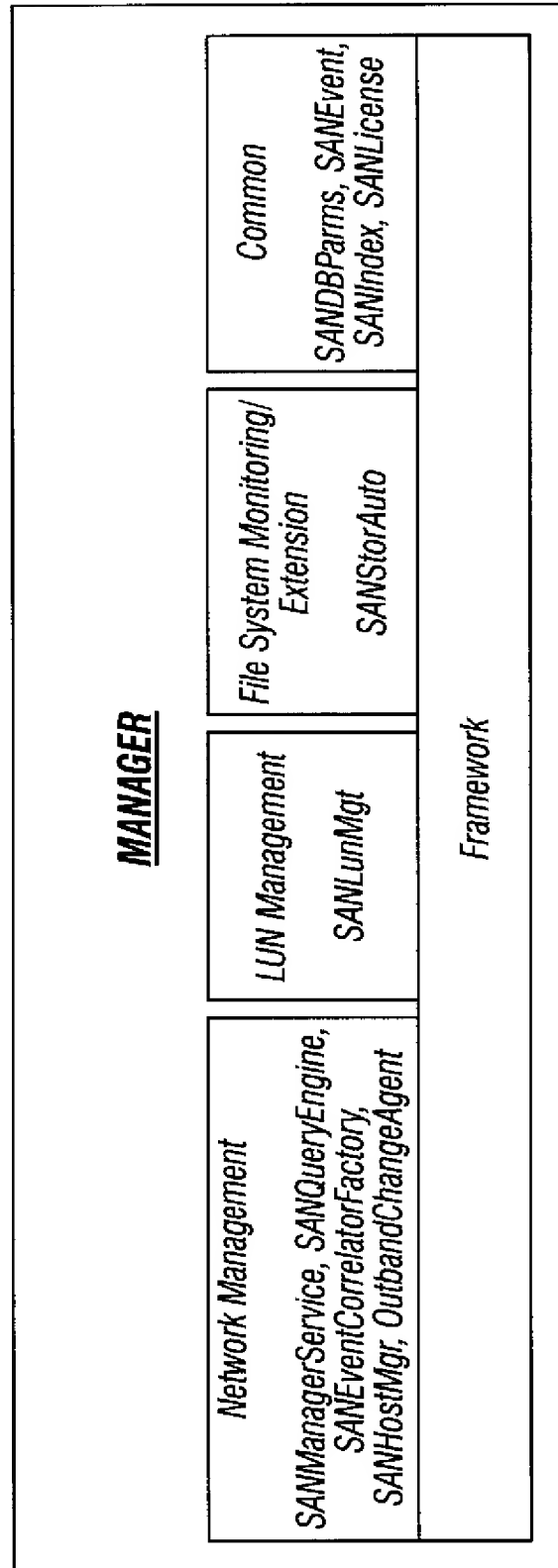


FIG. 5

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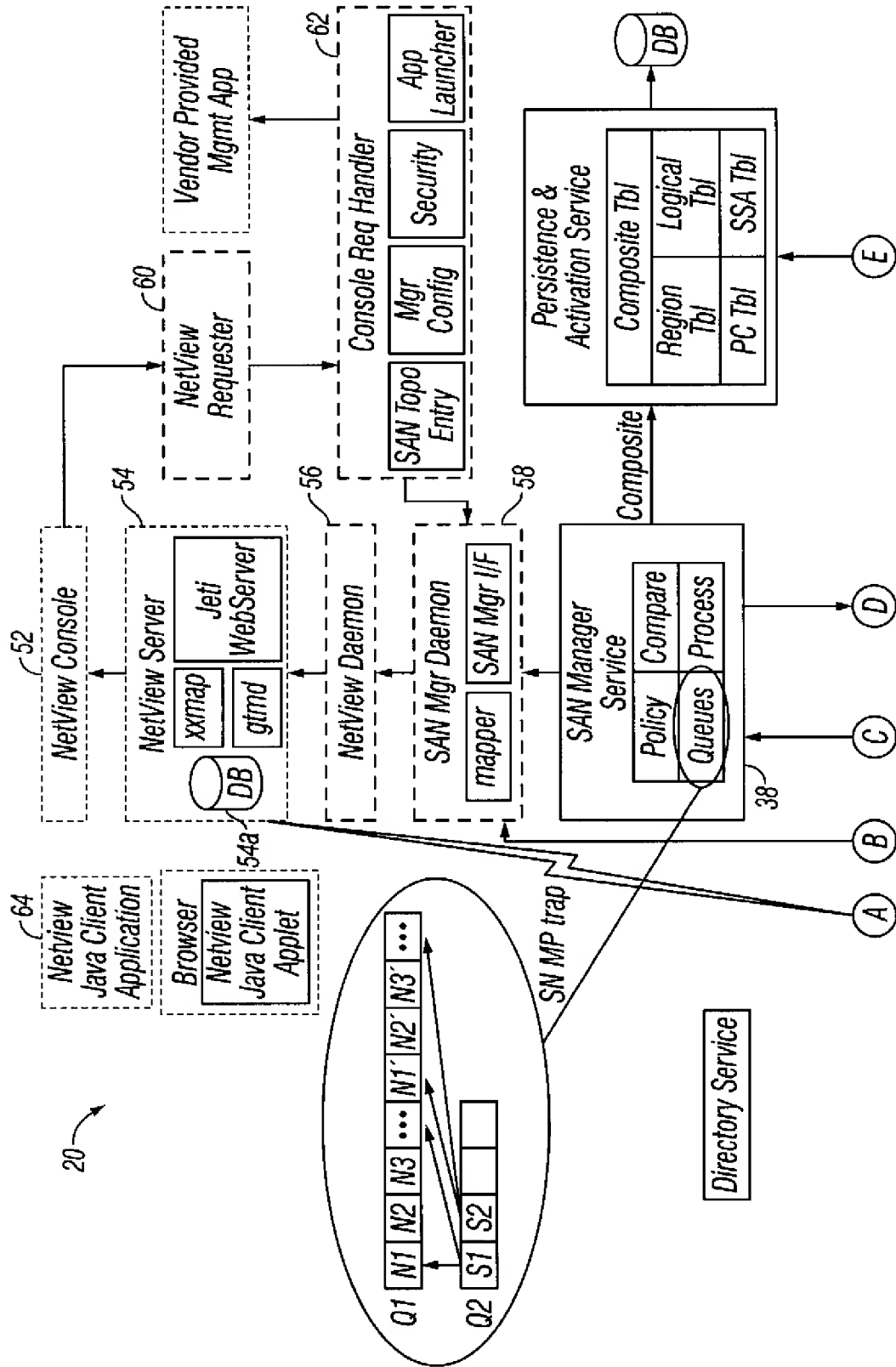


FIG. 6A

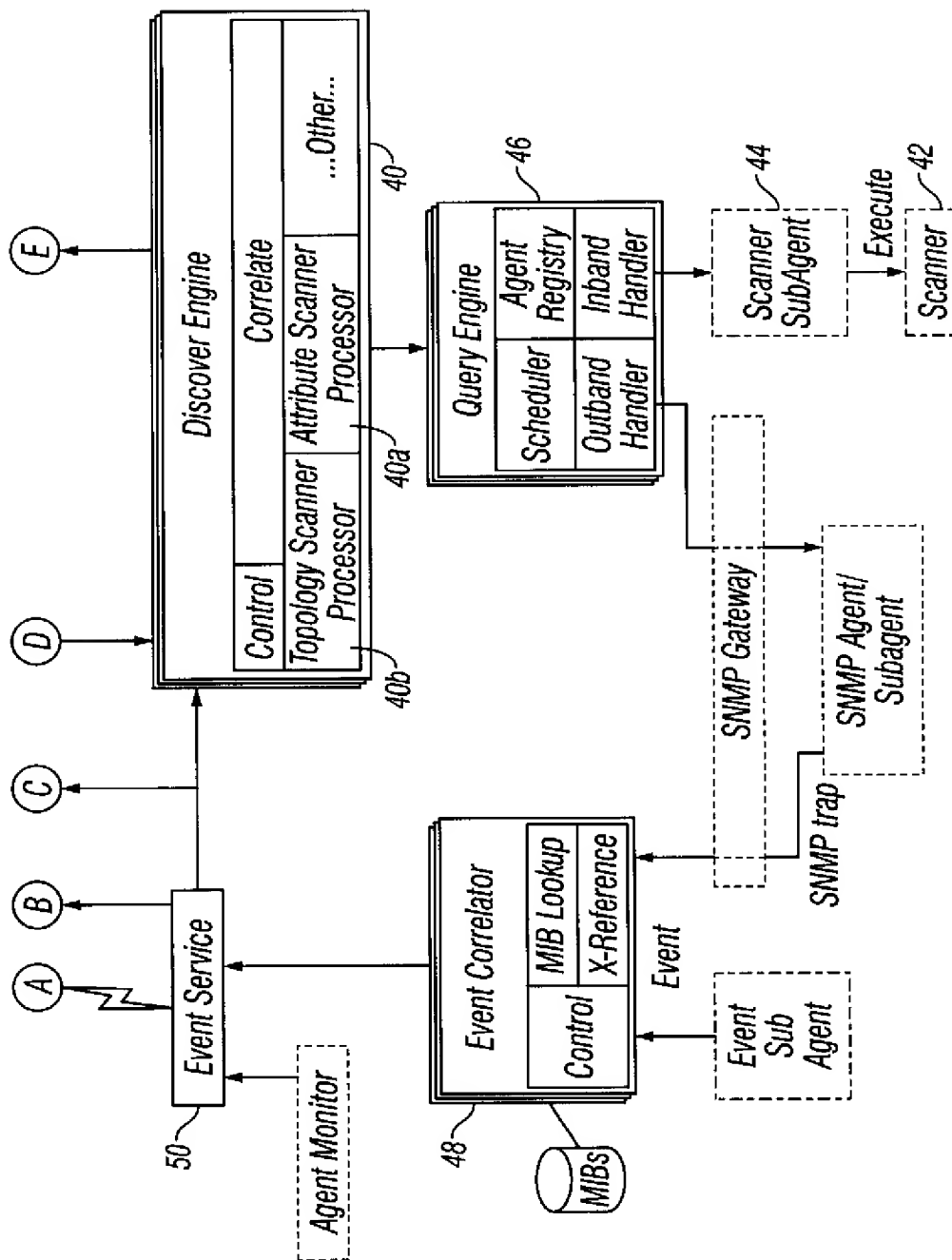


FIG. 6B

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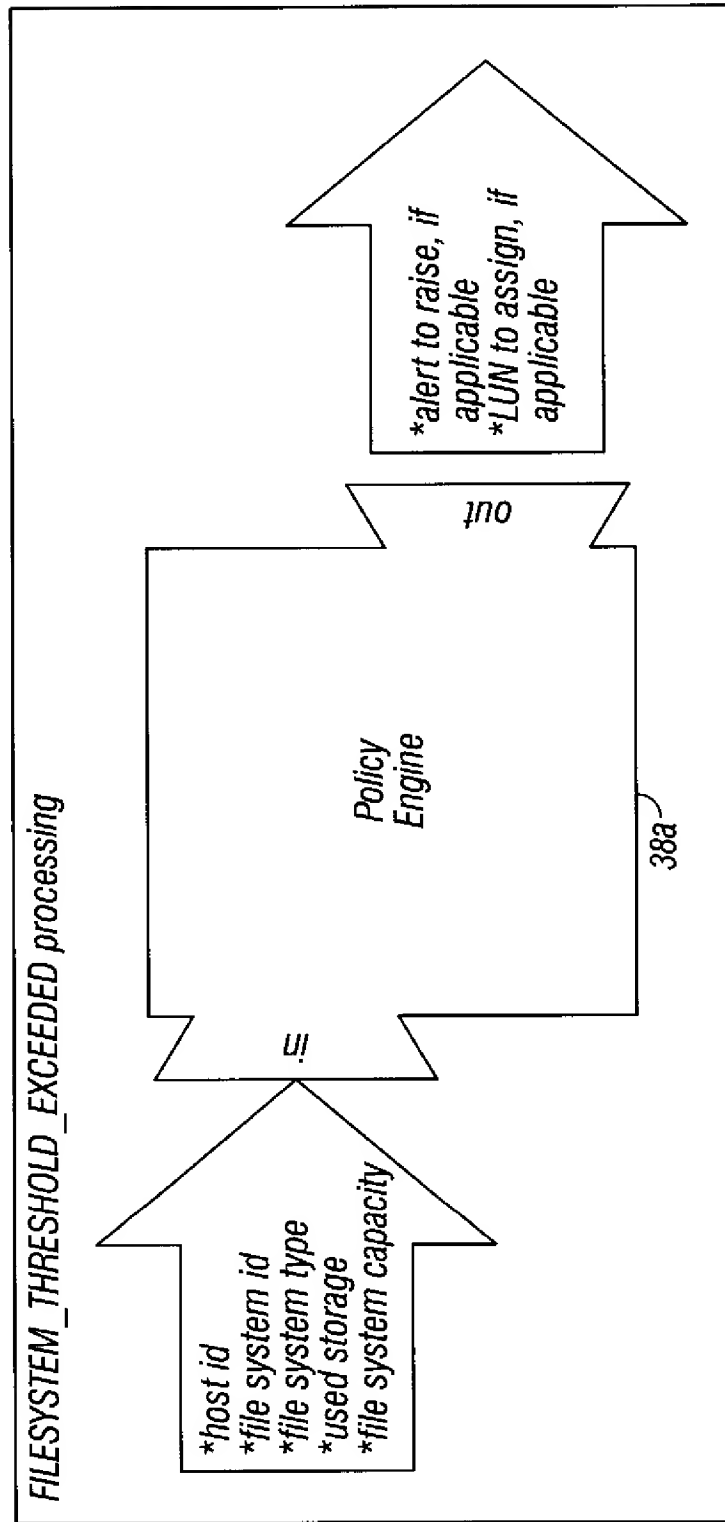


FIG. 7A

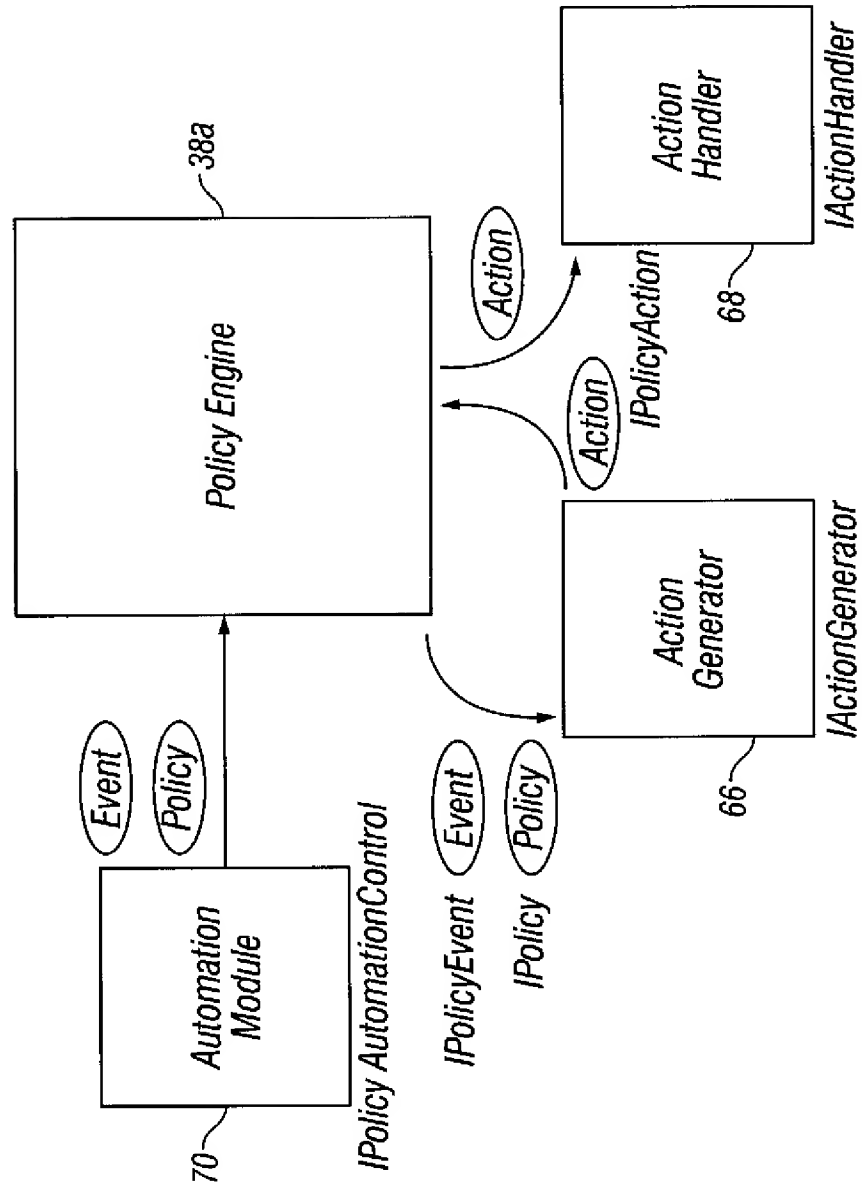


FIG. 7B

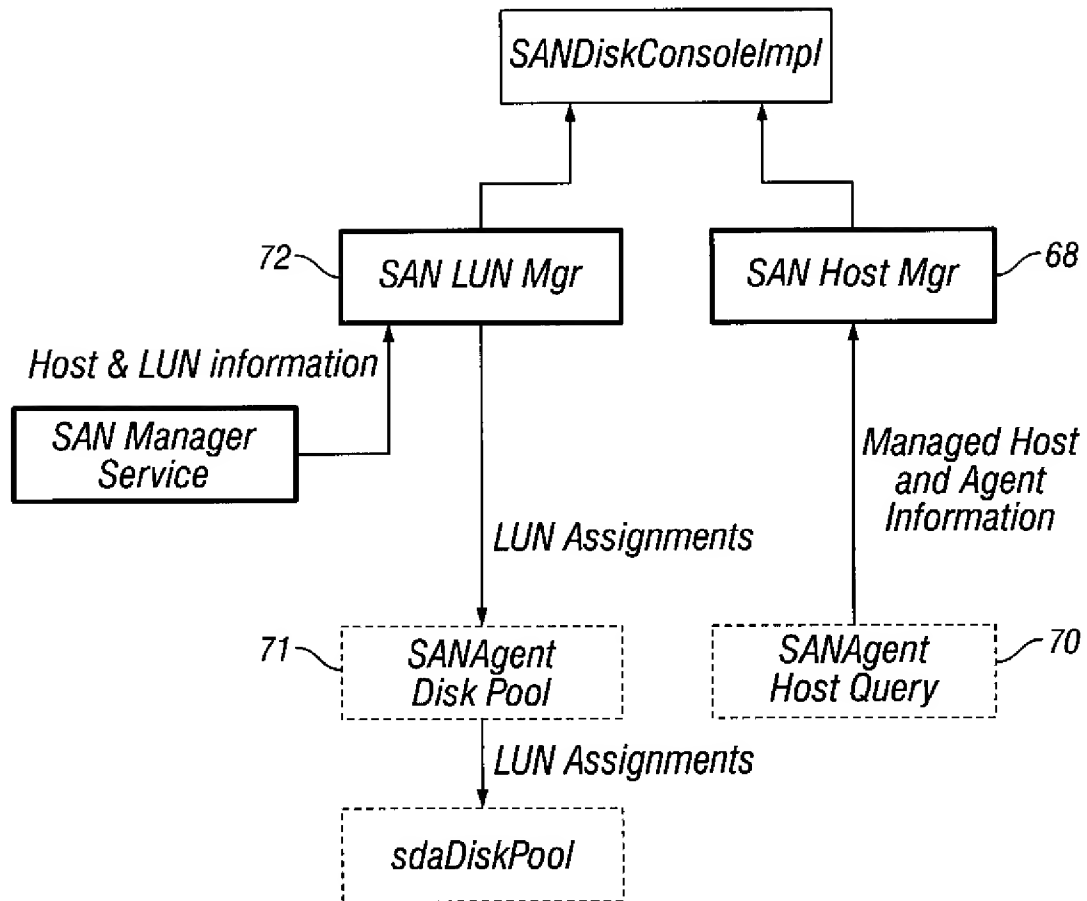


FIG. 8

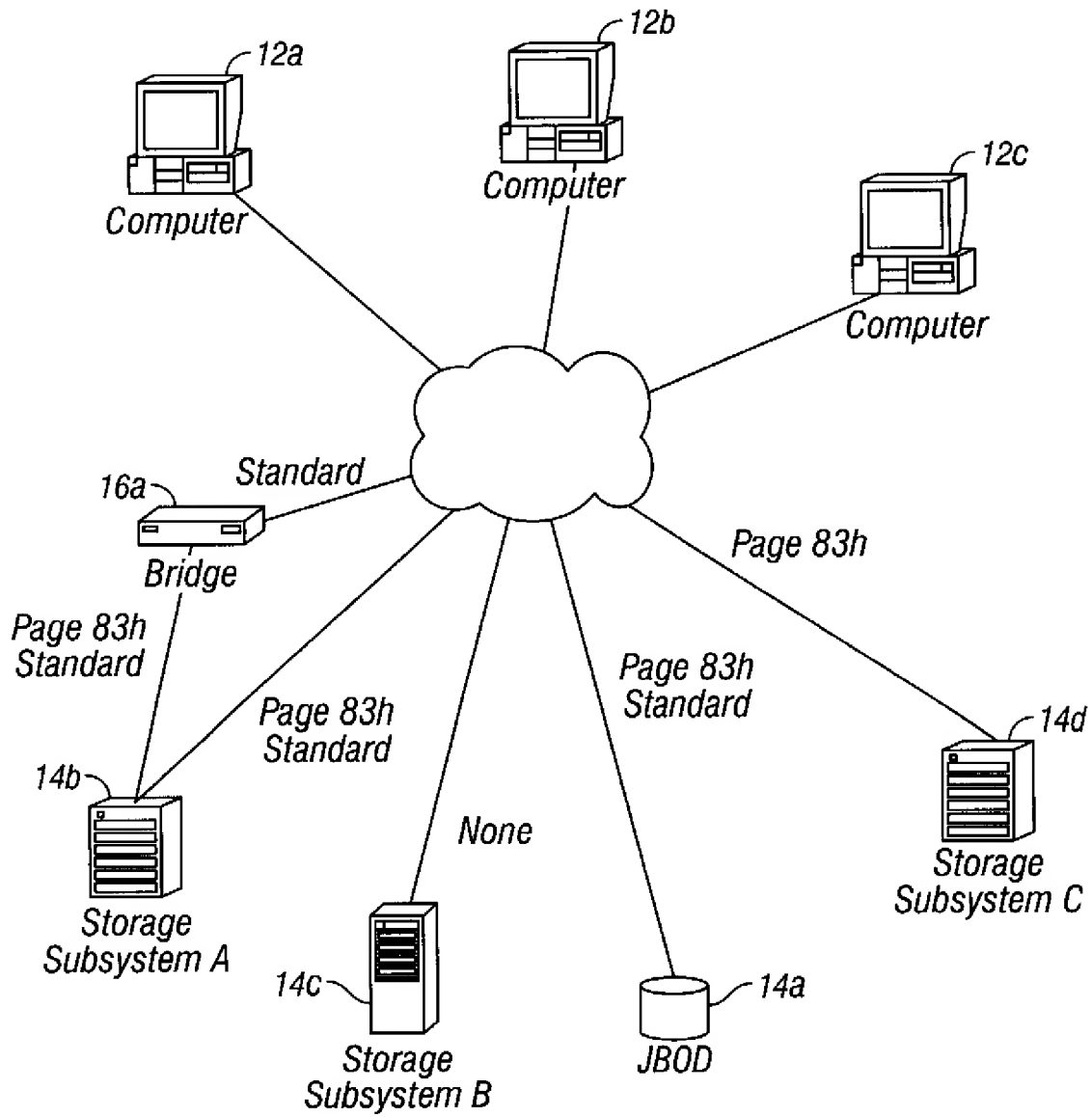


FIG. 9

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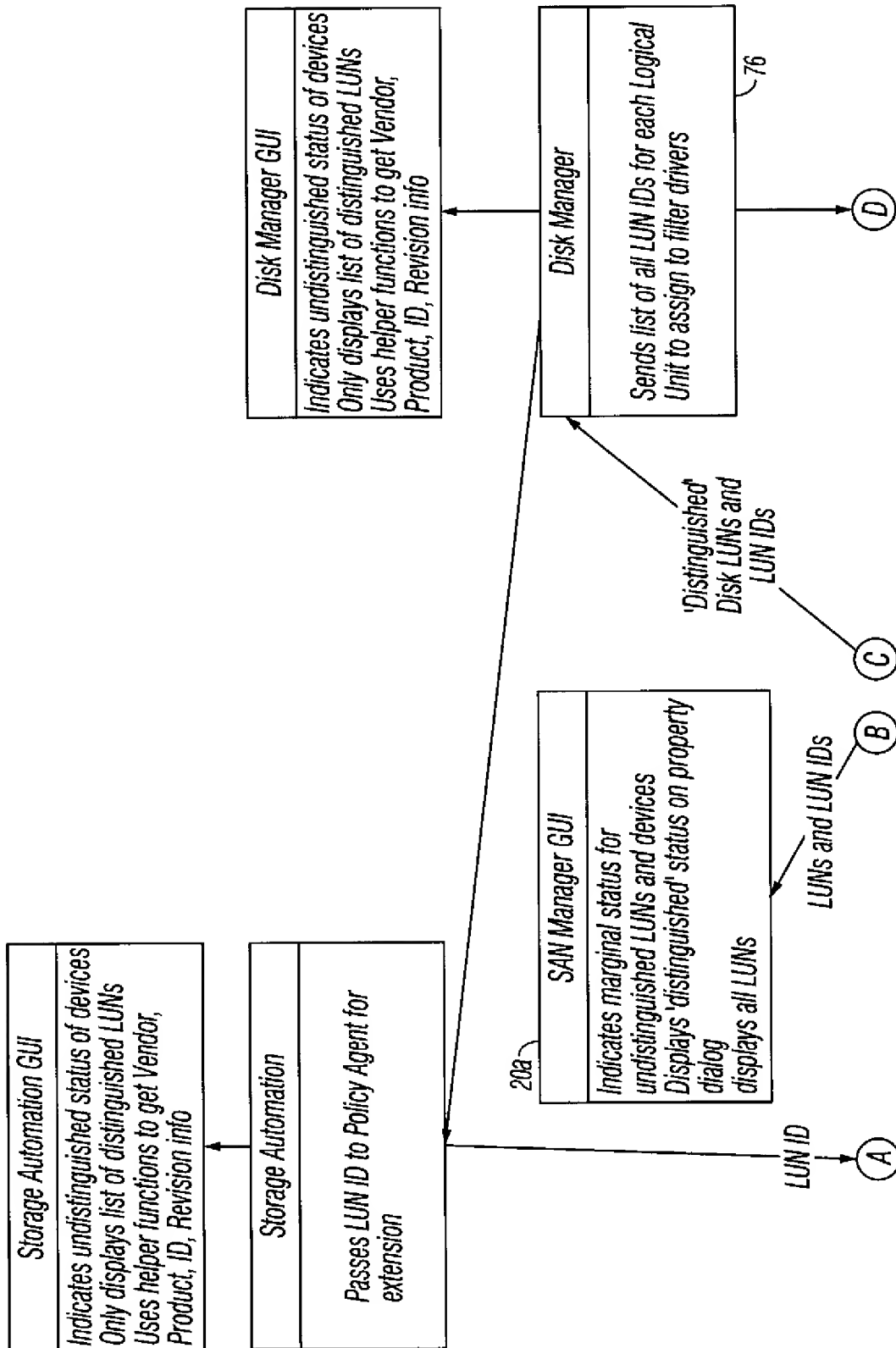


FIG. 10A

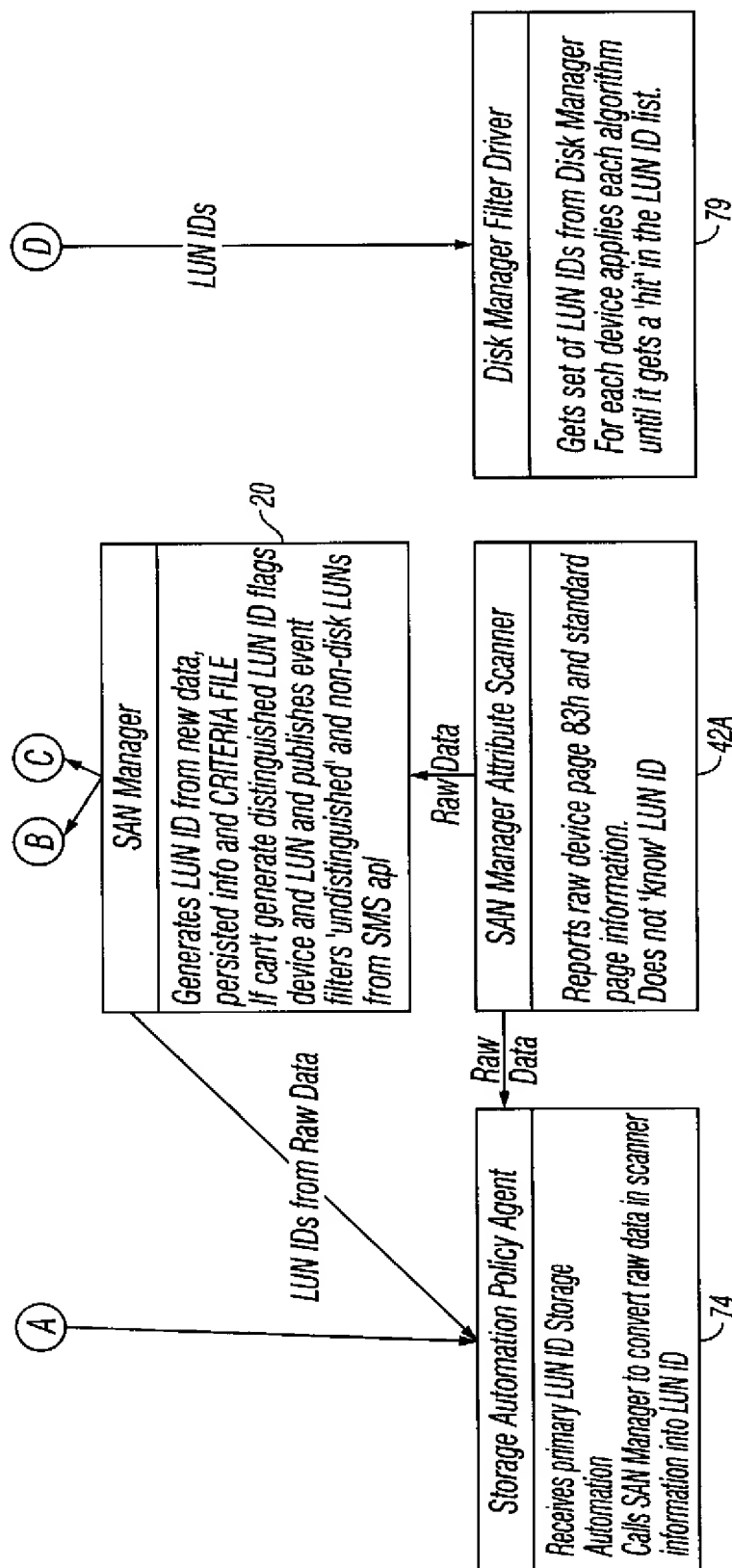


FIG. 10B

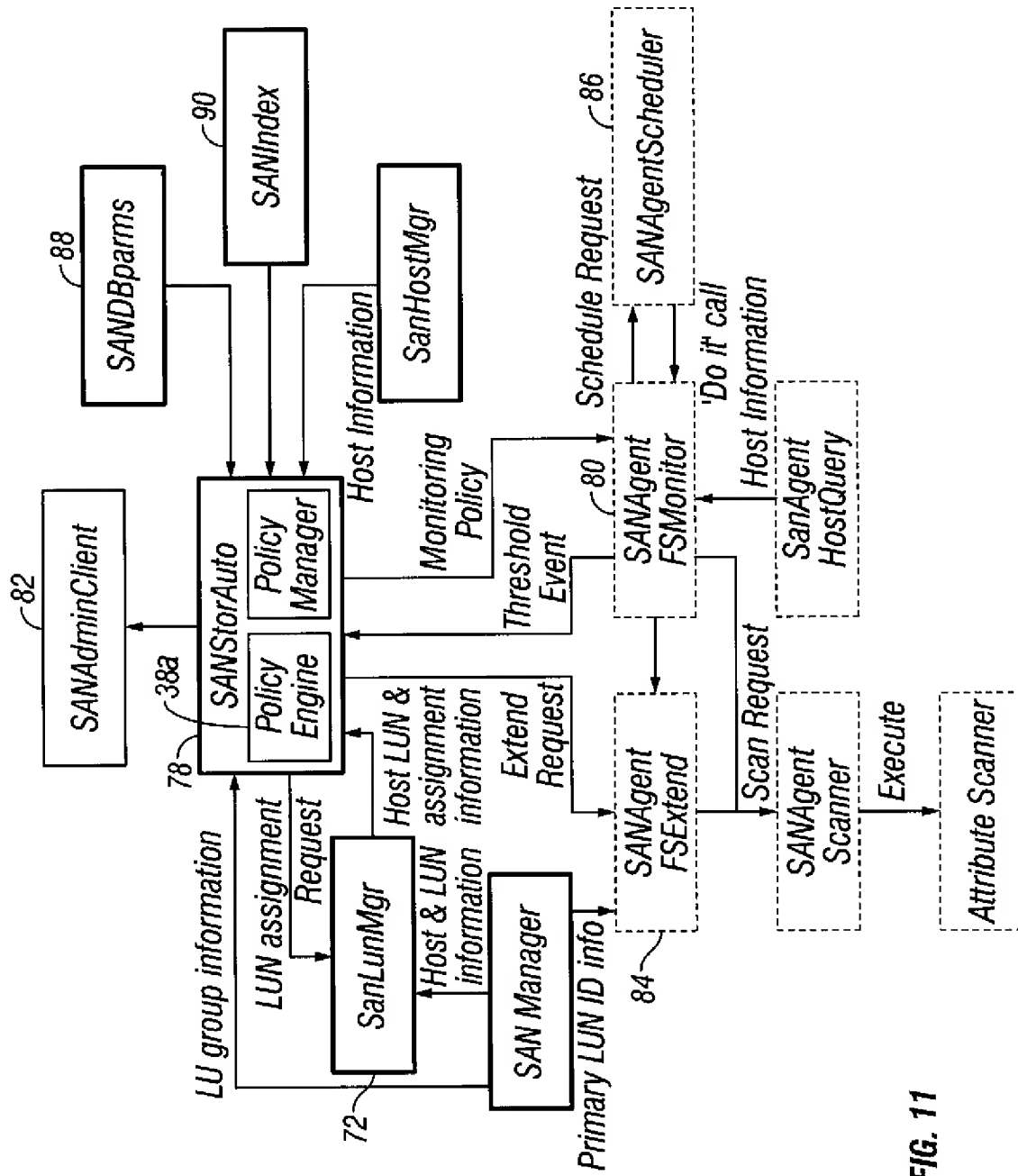


FIG. 11

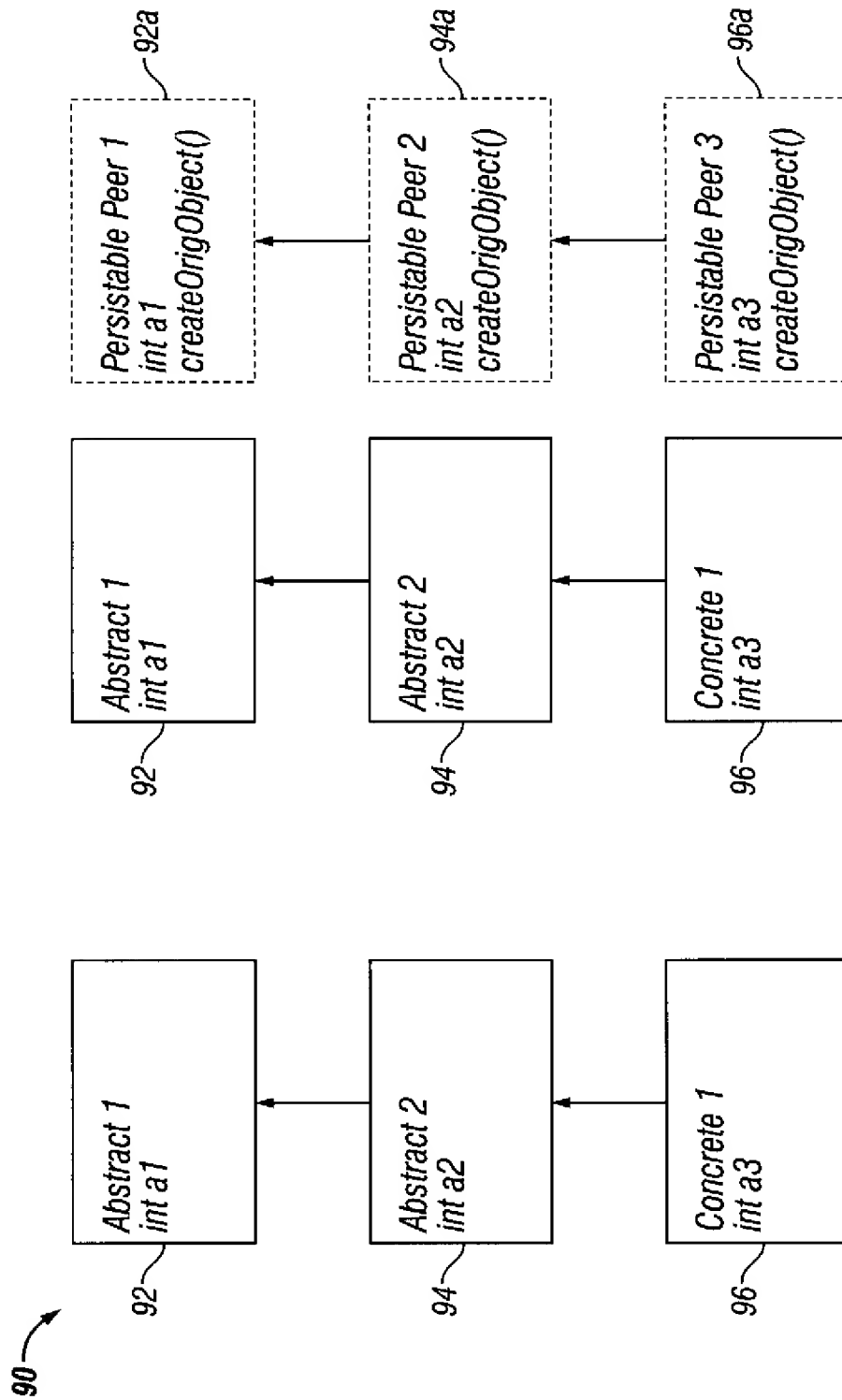


FIG. 13

FIG. 12

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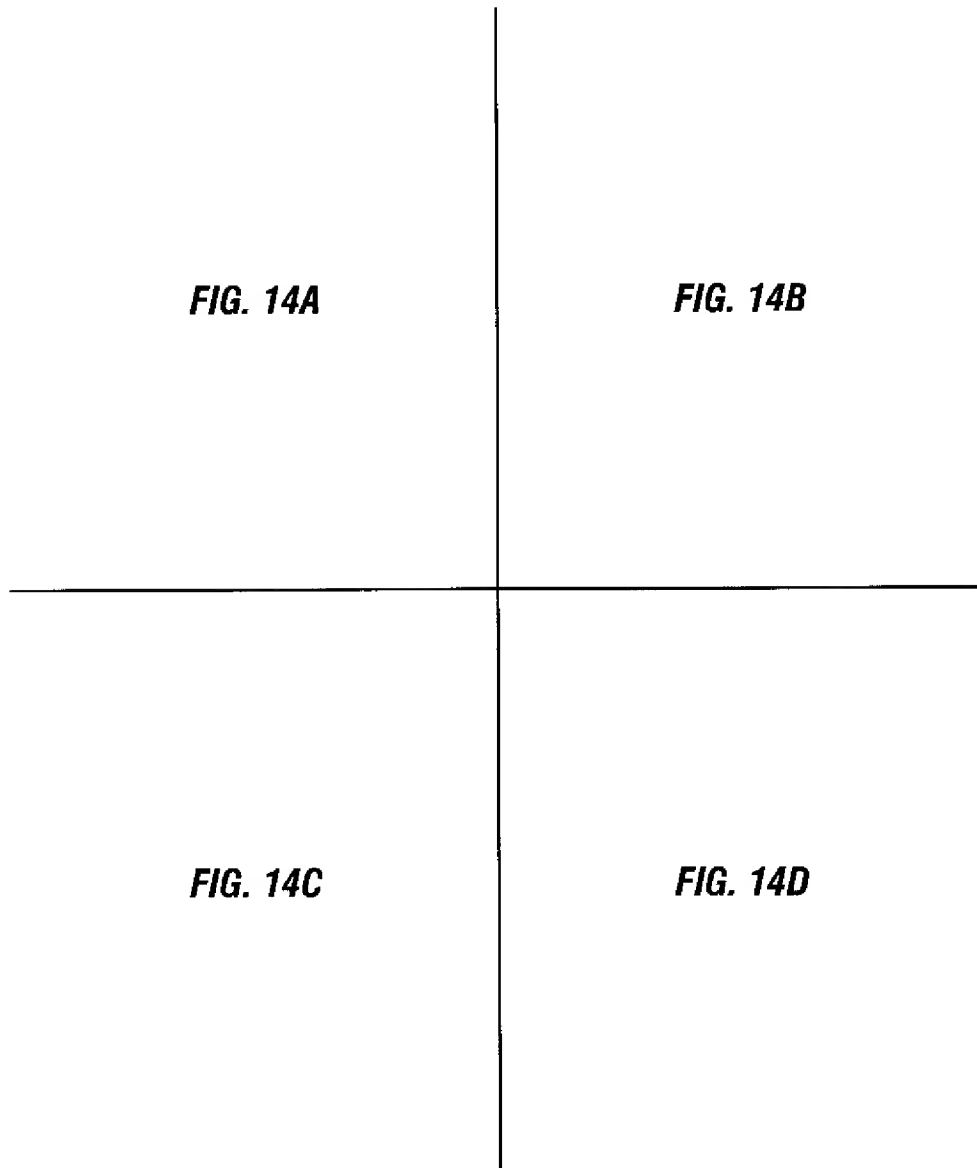


FIG. 14

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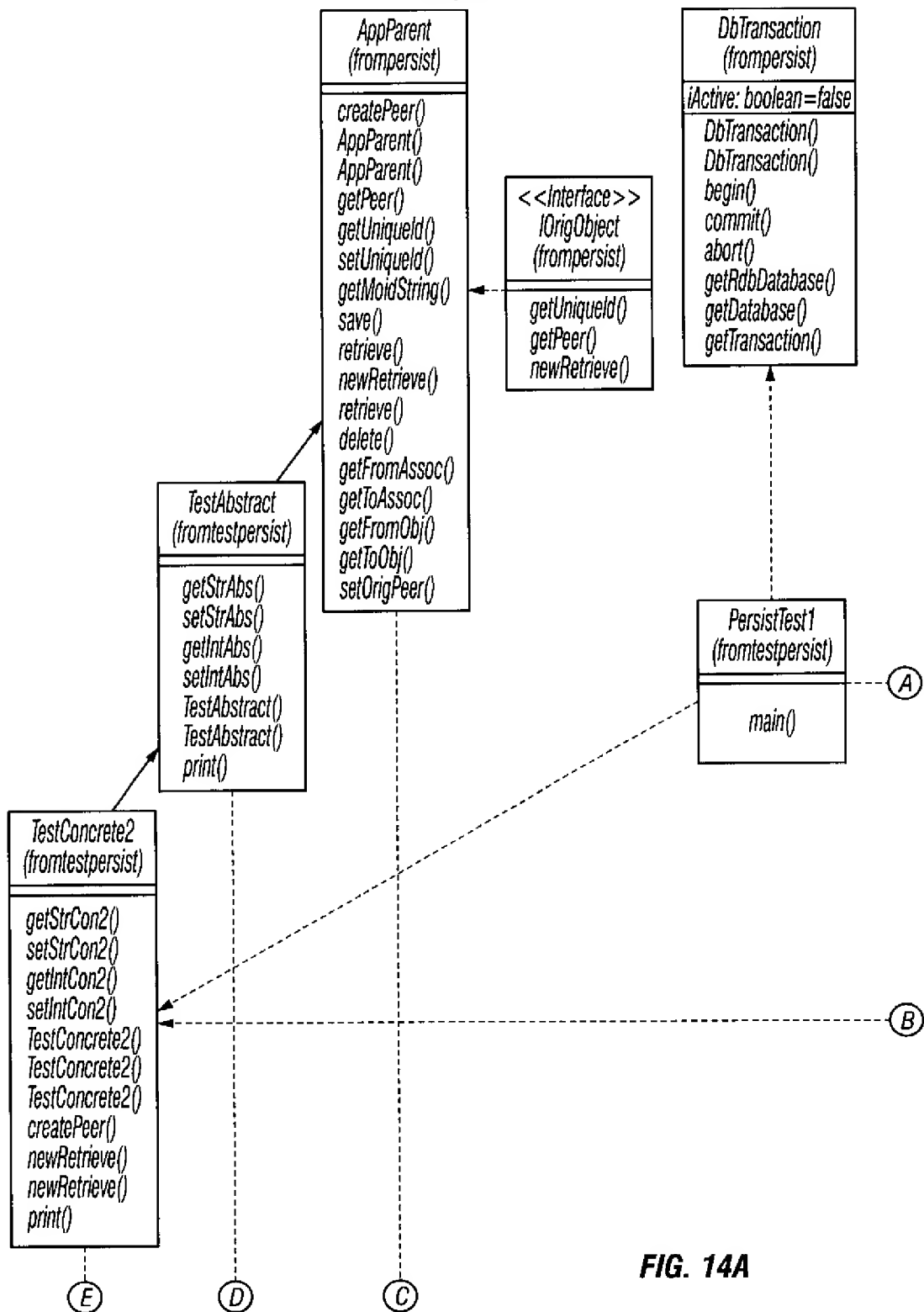


FIG. 14A

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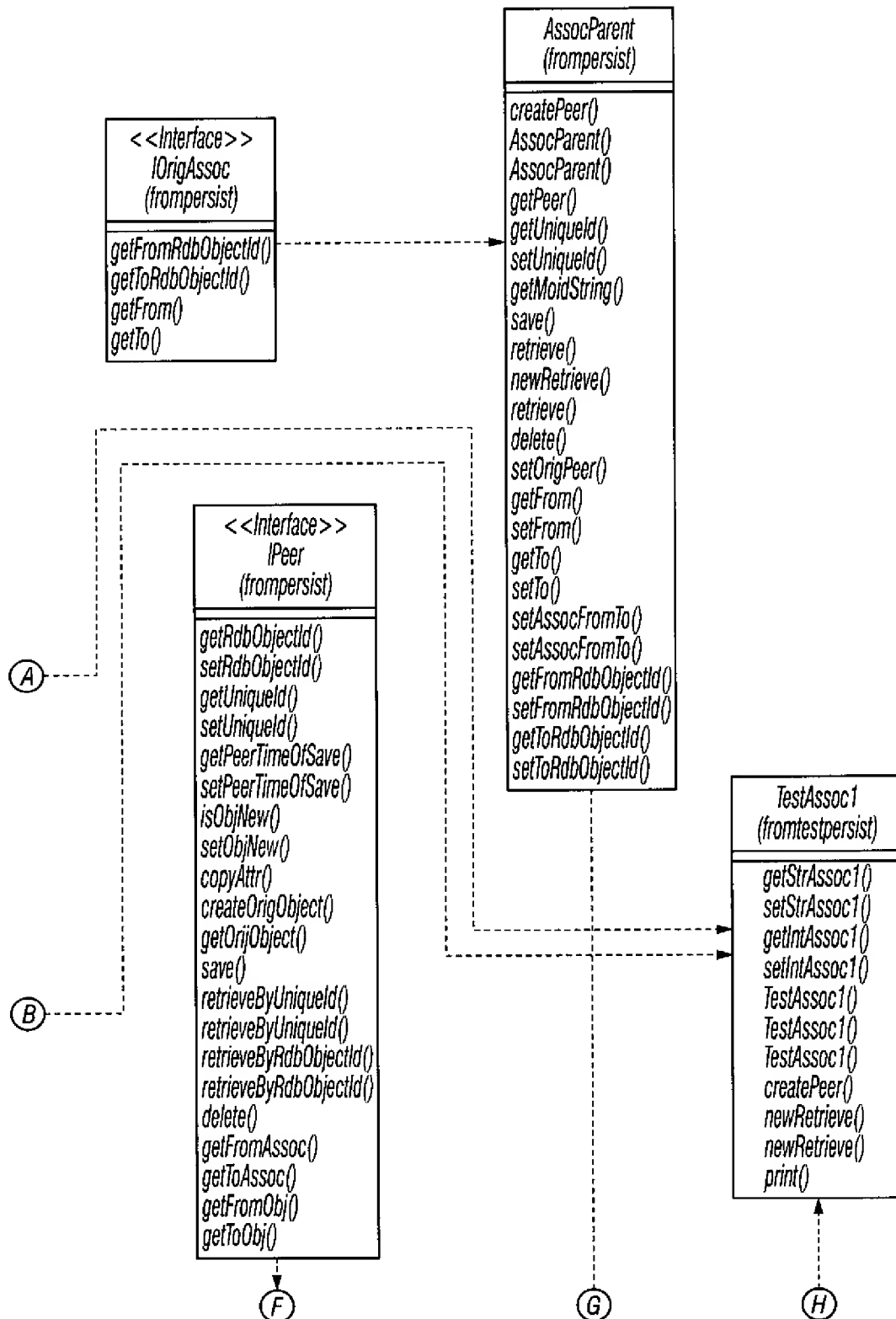


FIG. 14B

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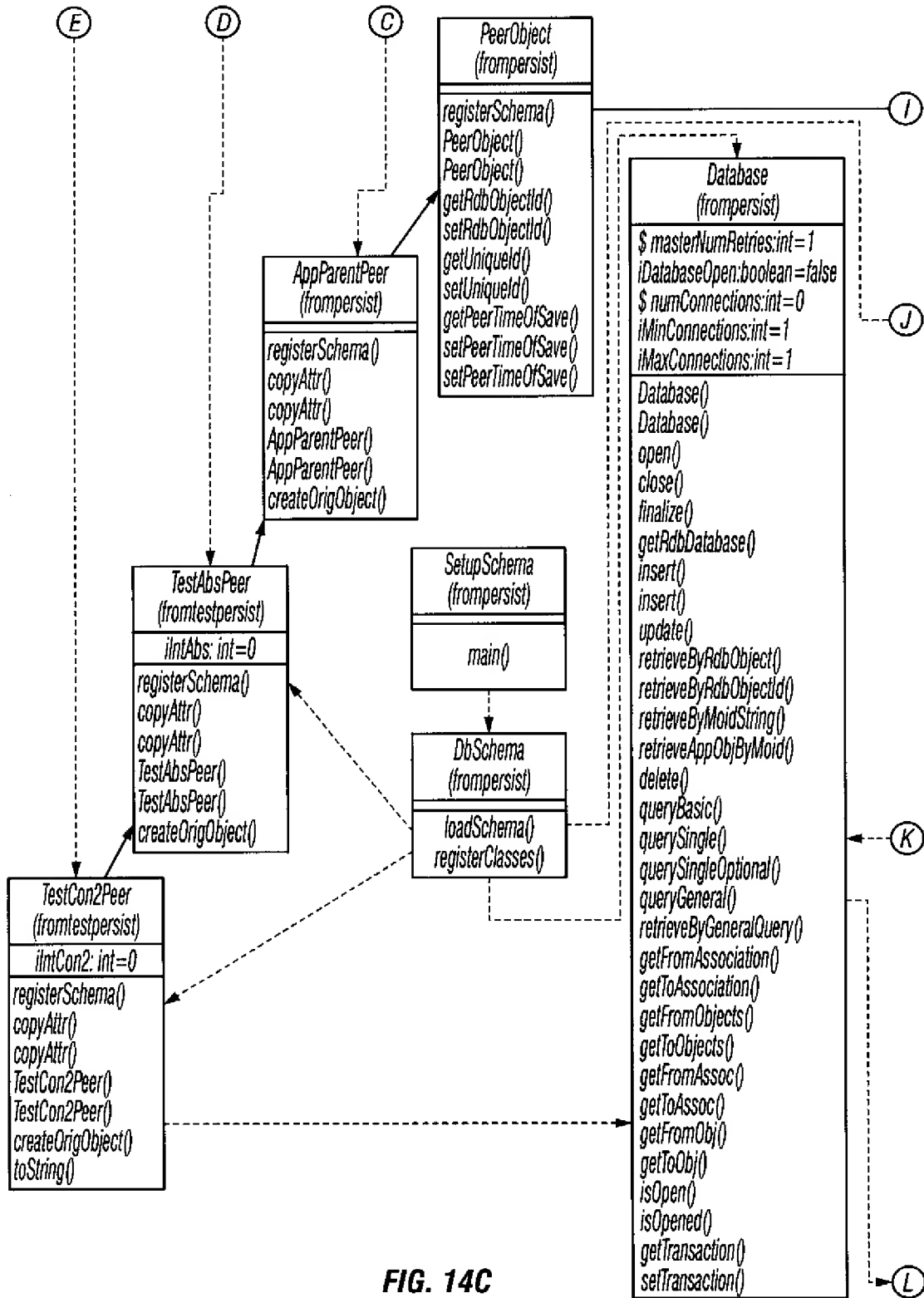


FIG. 14C

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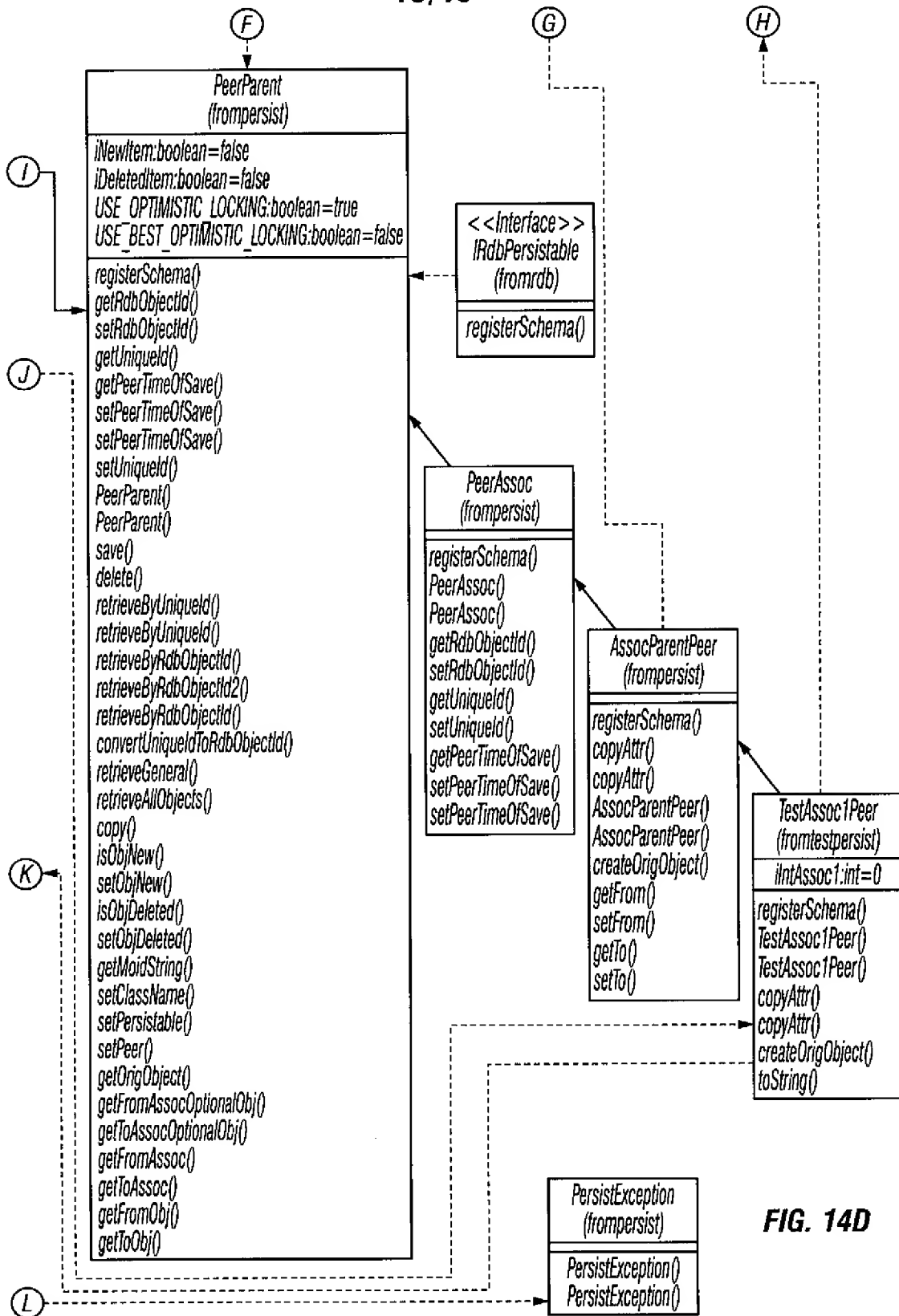


FIG. 14D

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GUI (server) & Manager communication

- Manager creates objects (services) and "bind" them to Voyager directory service
- GUI "looks up" the object by name in directory service and get the object "proxy"
- GUI invokes object methods to obtain info or perform operation

Example: Class TDMServer()

```
LUN[] getAccessibleLunsByHost(HostaHost)
LUN[] getAccessibleLunsByHost(java.lang.String ip)
LUN[] getAllAccessibleLuns()
LUN[] getAssignedLunsByHost(HostaHost)
LUN[] getAssignedLunsByHost(java.lang.String ip)
```

```
//Look up the Tdm Server proxy object from the directory service
TdmServeraTdm = (Tdm Server) Namespace.lookup(
    "//localhost:9000/sandir/TdmServer");
//Get a list of all LUN objects in the region.
Lun[] temp1 = aTdm.getAllAccessibleLuns();
```

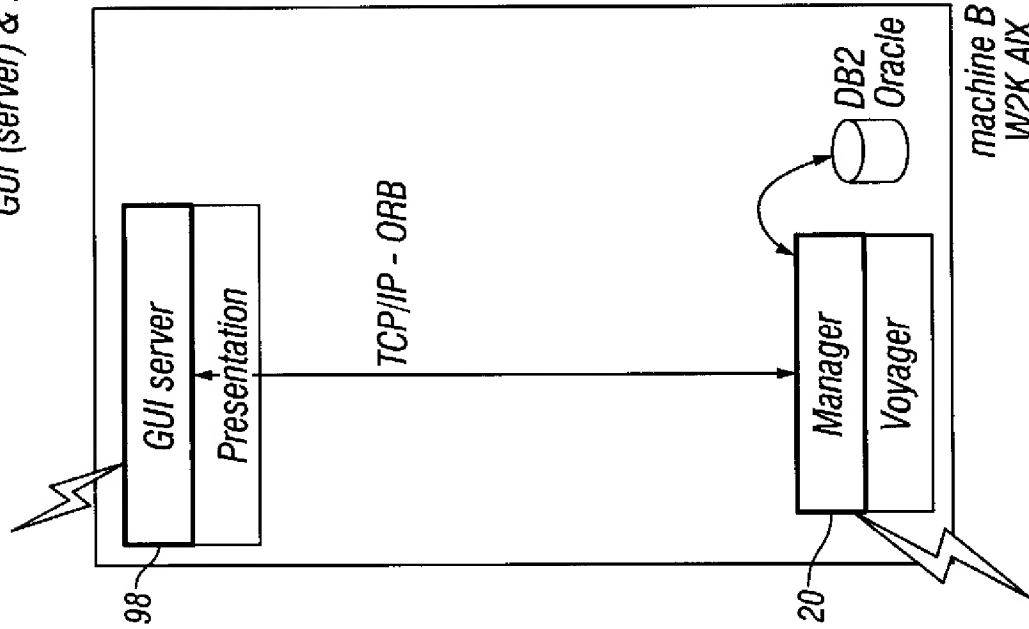


FIG. 15

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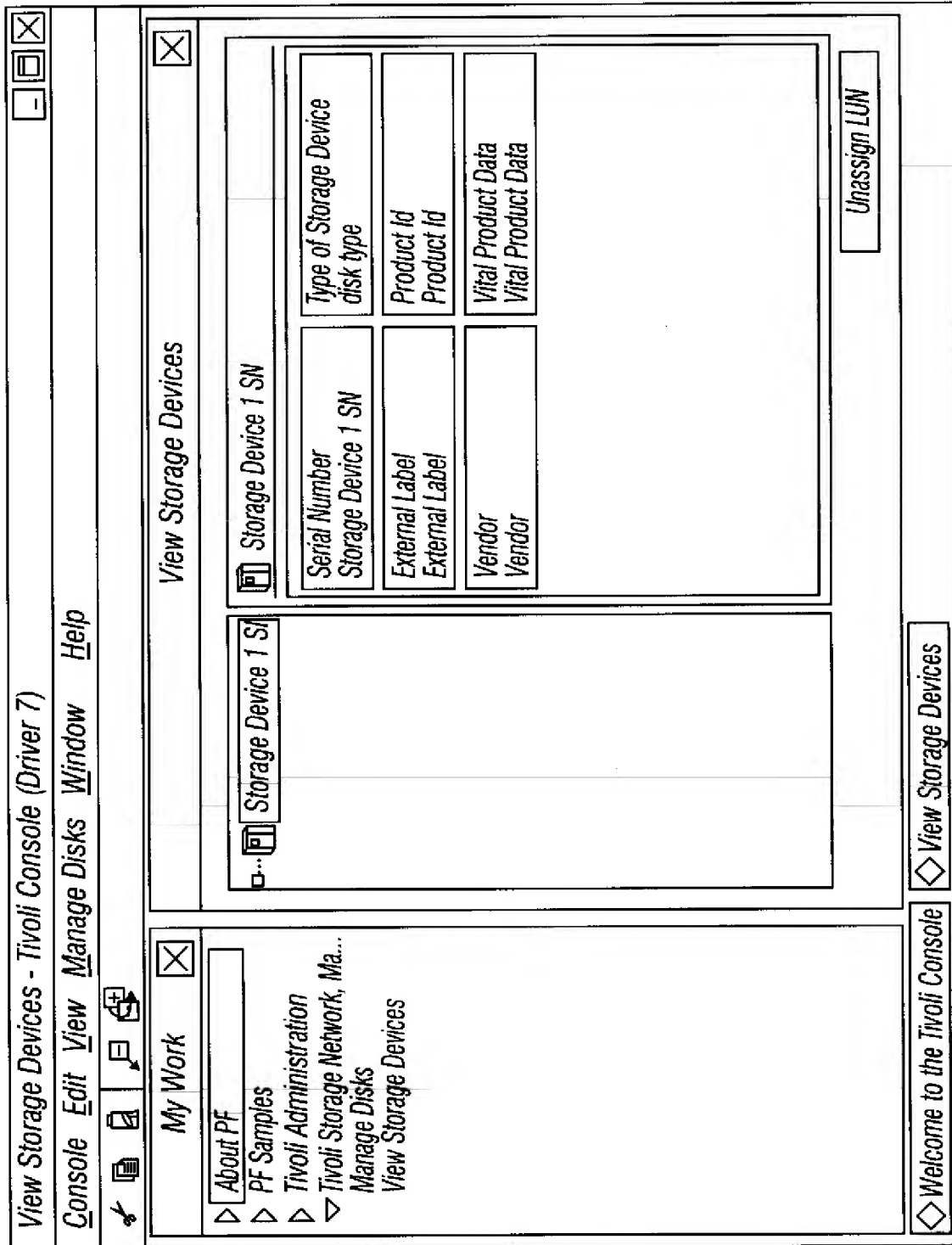


FIG. 16

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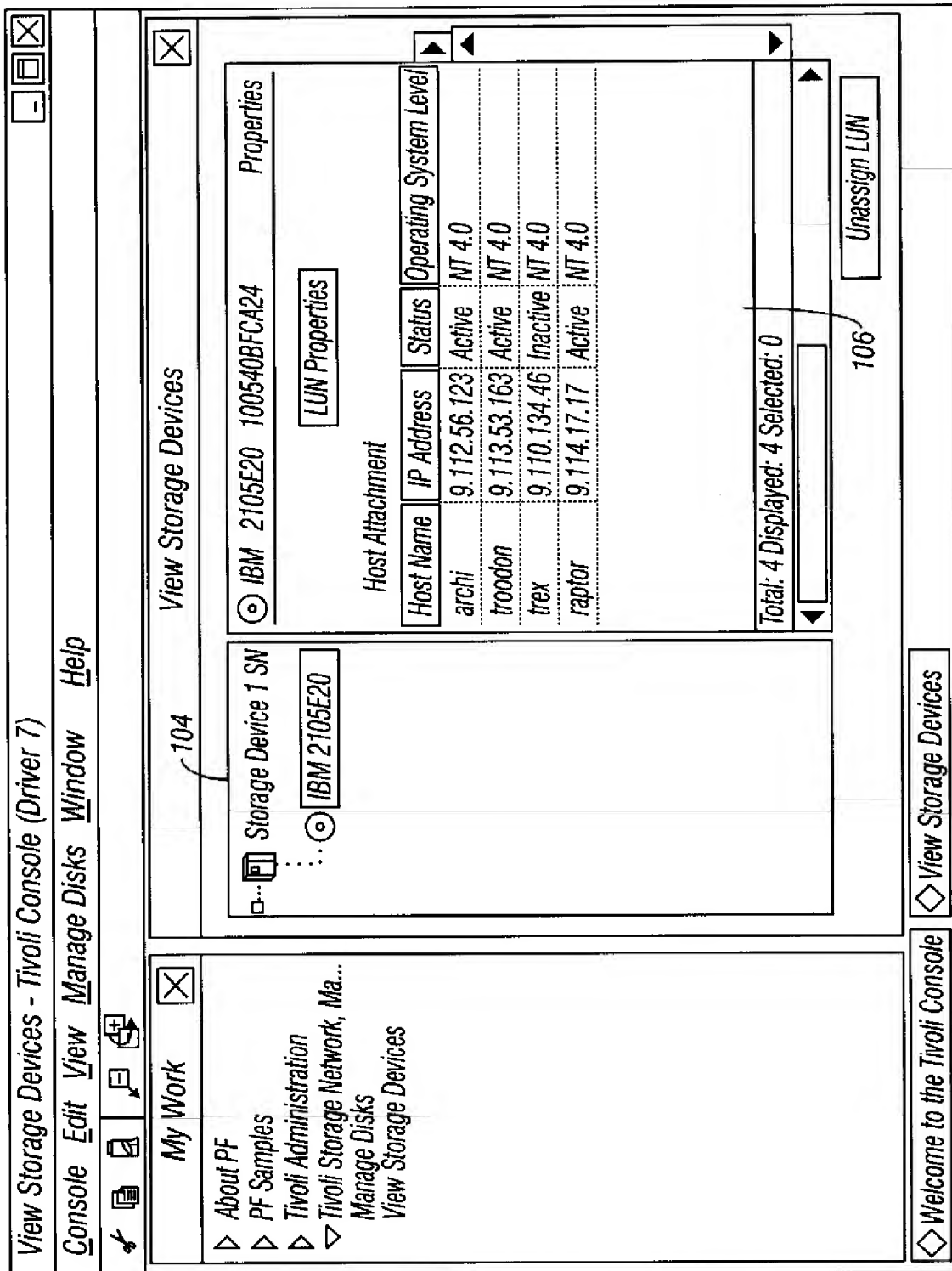


FIG. 17



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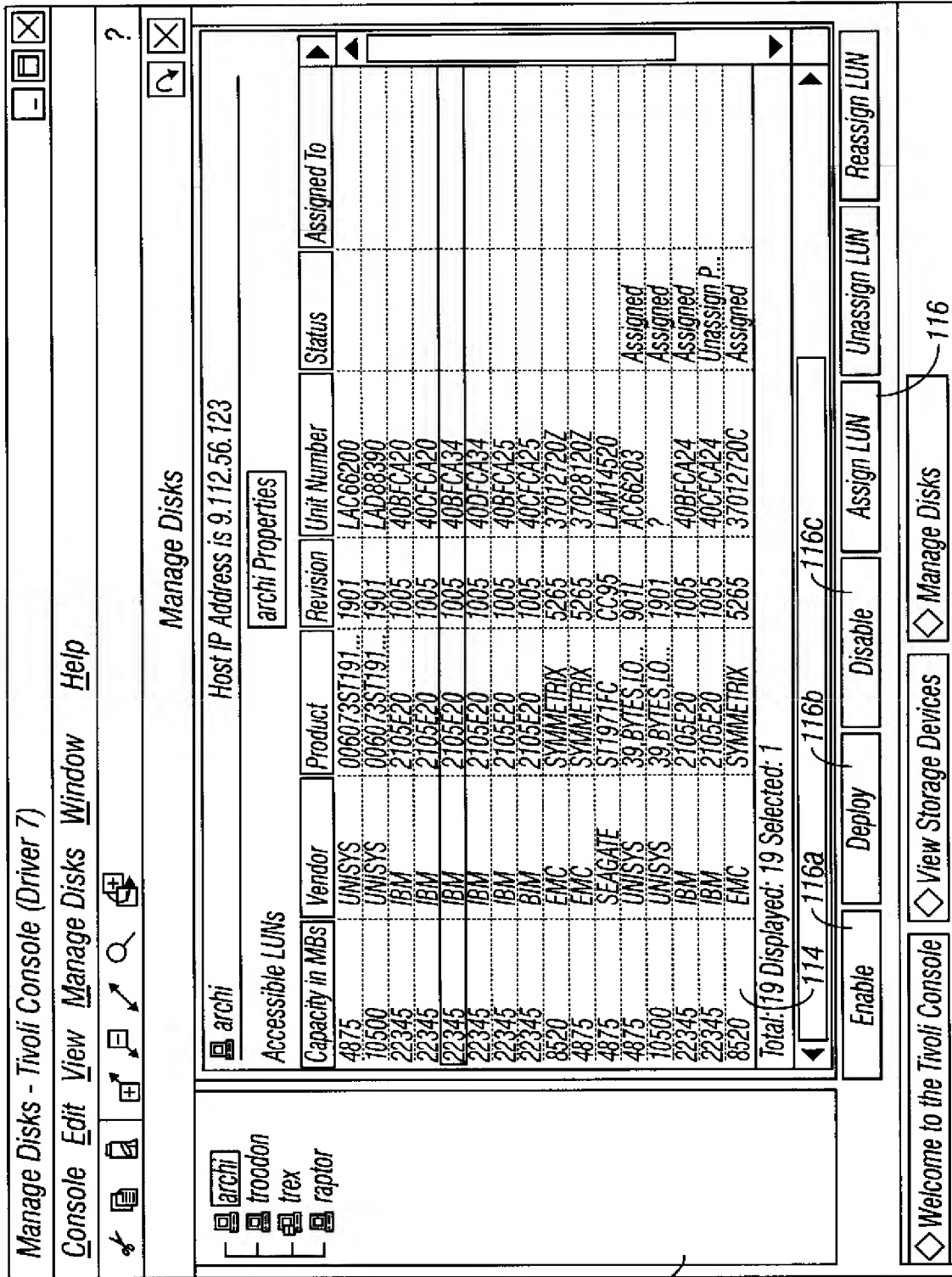


FIG. 19

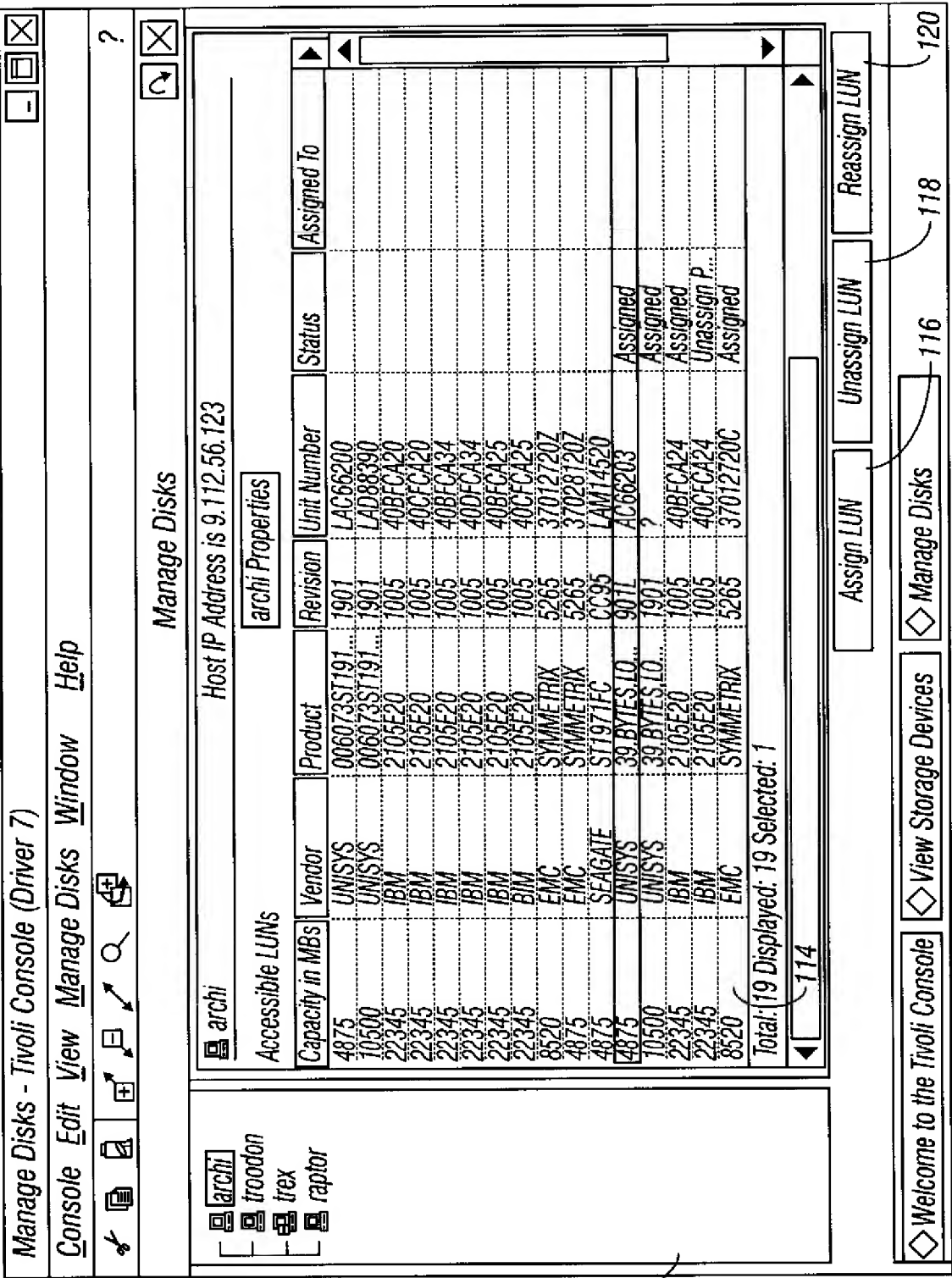


FIG. 20

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Manage Disks - Tivoli Console (Driver 7)

Console

Edit

View

Manage Disks

Window

Help

?

Manage LUNs

archi

Host IP Address is 9.112.56.123

Host Properties

Accessible LUNs

Capacity in MBs

Vendor

Product

Revision

Unit Number

Status

Assigned To Other

Logical Unit

5000

<no filter>

<no filter>

<no filter>

<no filter>

<no filter>

<no filter>

<no filter>

22,345

IBM

2105E20

1005

40CFC424

Unassigned Pending

LU group 1

10,500

UNISYS

006073ST191...

1901

LAD88397

Assigned

LU group 1

22,345

IBM

2105E20

1005

40BFC424

Assigned

LU group 1

8,520

EMC

SYMMETRIX

5265

37012720C

Assigned

LU group 1

10,500

UNISYS

006073ST191...

1901

LAD88390

LU group 1

22,345

IBM

2105E20

1005

40BFC420

LU group 1

22,345

IBM

2105E20

1005

40CFC420

LU group 1

22,345

IBM

2105E20

1005

40BFC434

LU group 1

22,345

IBM

2105E20

1005

40DFC434

LU group 1

22,345

IBM

2105E20

1005

40BFC425

LU group 1

22,345

IBM

2105E20

1005

40CFC425

LU group 1

8,520

EMC

SYMMETRIX

5265

37012720Z

LU group 1

Total: 19 Displayed: 12 Selected: 0

Assign LUN

Unassign LUN

Reassign LUN

archi

troodon

trex

raptor

vega

Welcome

Manage LUNs

FIG. 21

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122

Manage Disks - Tivoli Console (Driver 7)

Console

Edit

View

Manage Disks

Window

Help

?

+

↶

↷

↻

Manage LUNs

archi

Host IP Address is 9.112.56.123

Accessible LUNs

Capacity in MBs

5000

At least

At least

At most

OK

Unit Number

<no filter>

Status

<no filter>

Assigned To Other

<no filter>

Logical Url

<no filter>

8,520	EMC	SYMMETRIX	5265	37012720C	Assigned		LU group 1
4,875	EMC	SYMMETRIX	5265	37028120C	Assigned		LU group 1
4,875	EMC	SYMMETRIX	825265	37028120C	Assigned		LU group 1
0	SEAGATE	ST1971FC	CC95	LAM14526	Assigned		LU group 1
4,875	UNISYS	006073ST191	1901	LAC66200	Assigned		LU group 1
10,500	UNISYS	006073ST191	1901	LAD88390	Assigned		LU group 1
22,345	IBM	2105E20	1005	408FC420	Assigned		LU group 1
22,345	IBM	2105E20	1005	408FC420	Assigned		LU group 1
22,345	IBM	2105E20	1005	408FC434	Assigned		LU group 1
22,345	IBM	2105E20	1005	408FC434	Assigned		LU group 1
8,520	EMC	SYMMETRIX	5265	37012720Z	Assigned		LU group 1

Total: 19 Displayed: 19 Selected: 0

Assign LUN

Unassign LUN

Reassign LUN

archi

troodon

trex

raptor

vega

124

Manage LUNs

Welcome

Manage LUNs

FIG. 22

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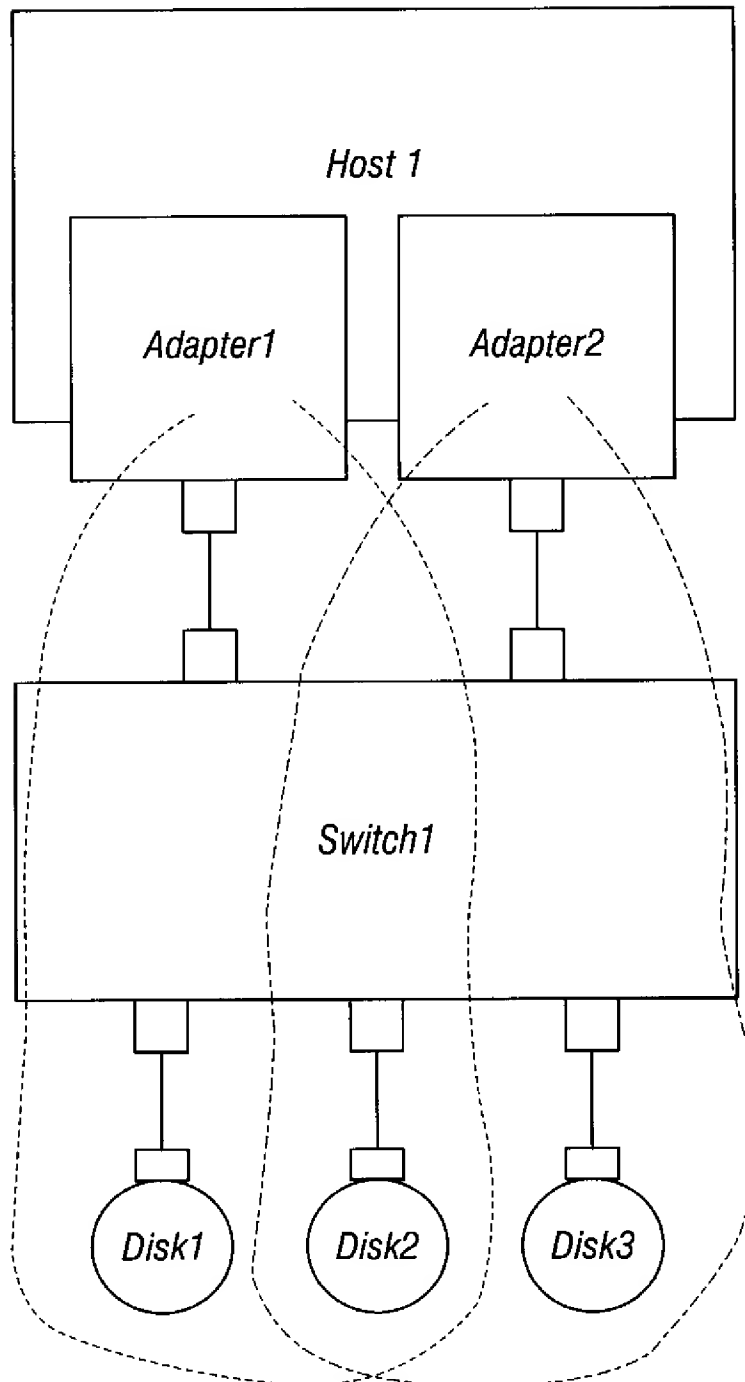


FIG. 23

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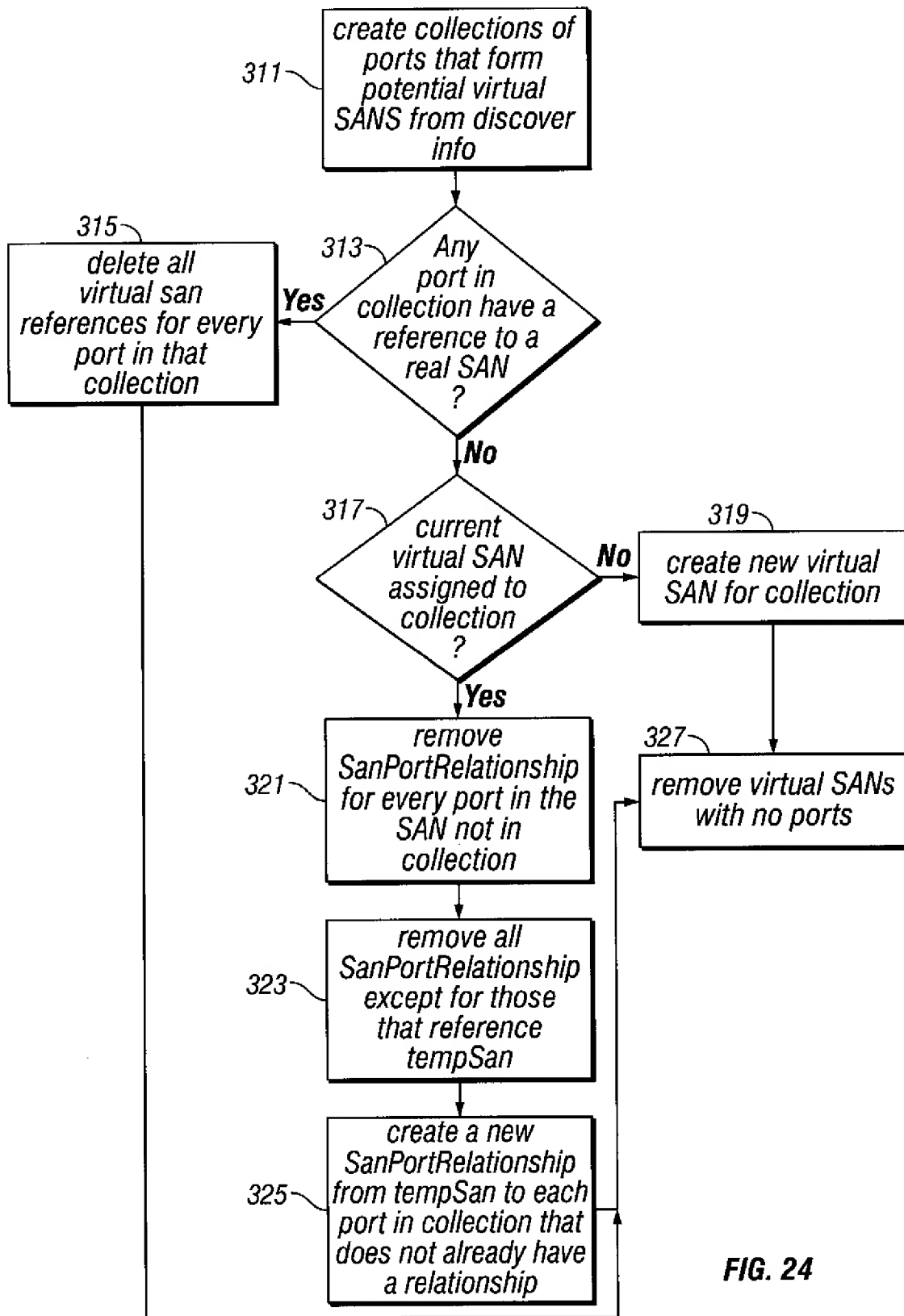


FIG. 24

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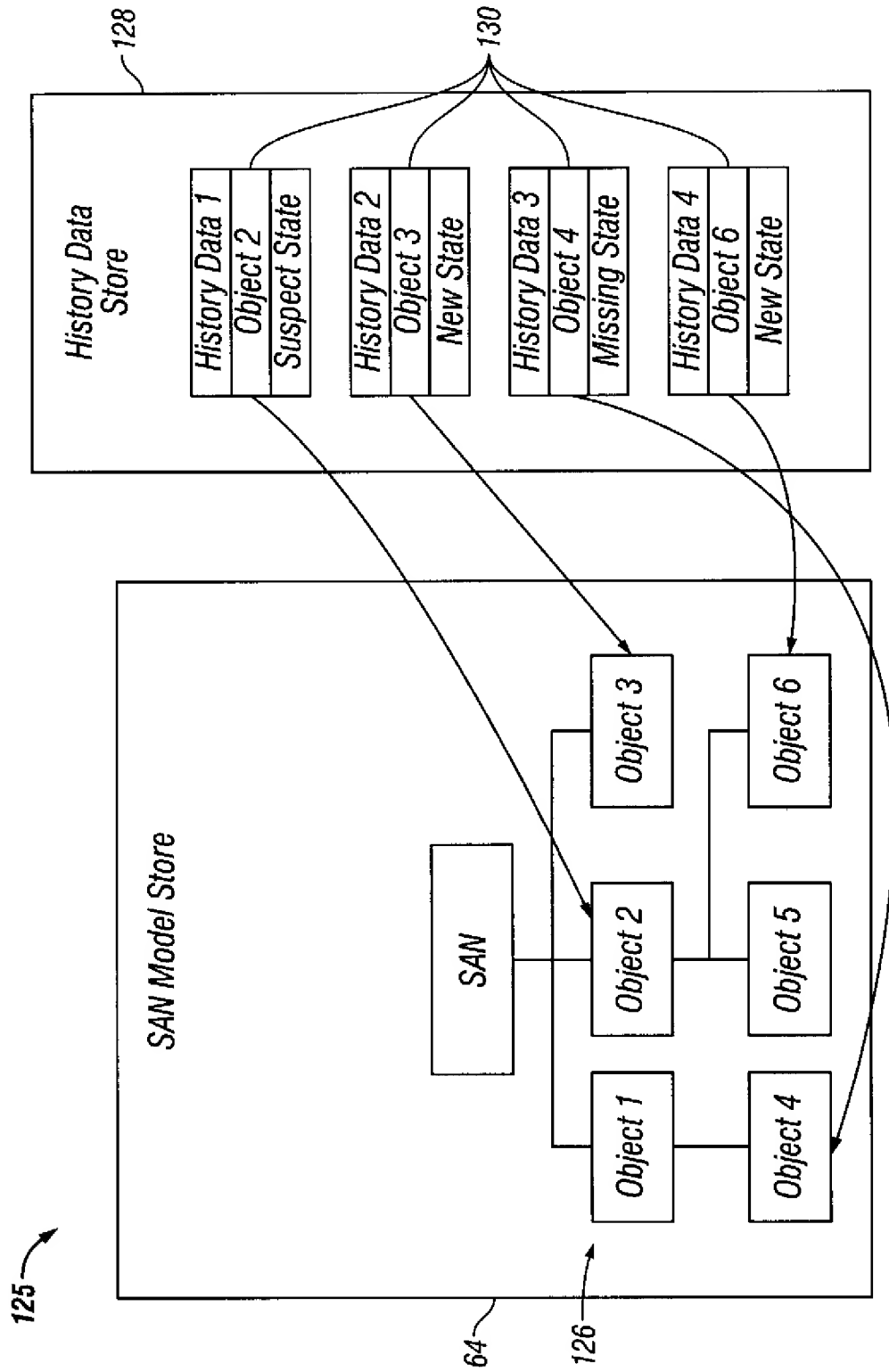


FIG. 25

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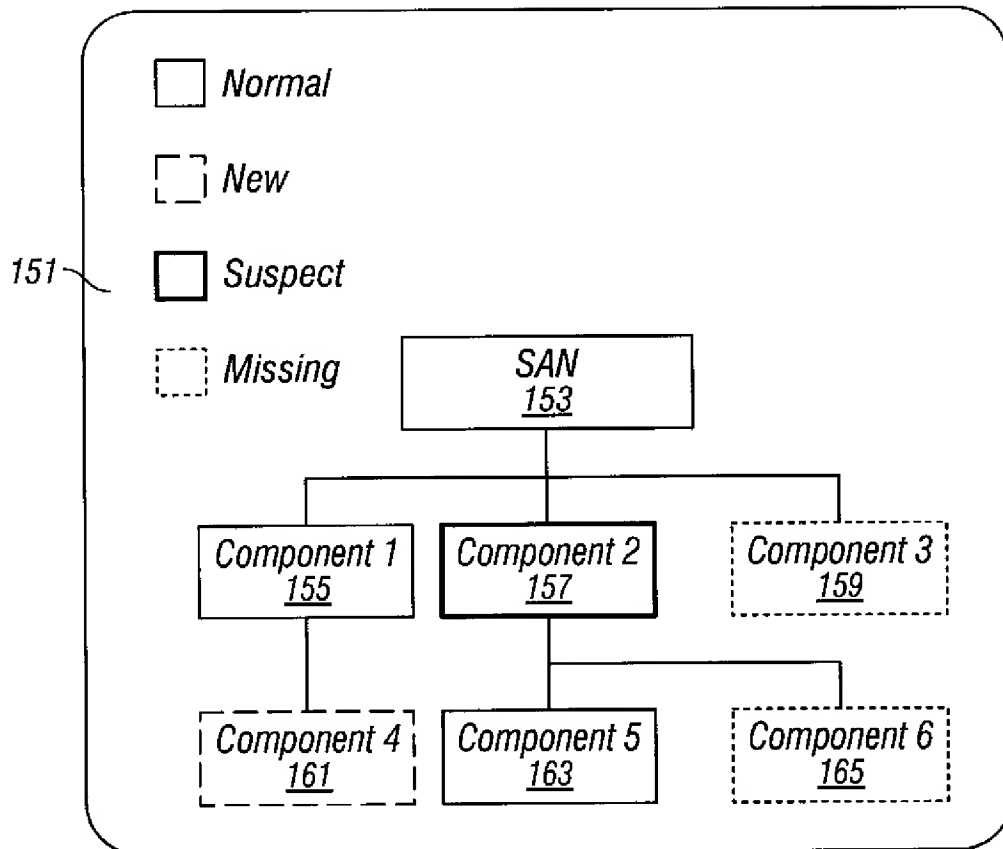


FIG. 26

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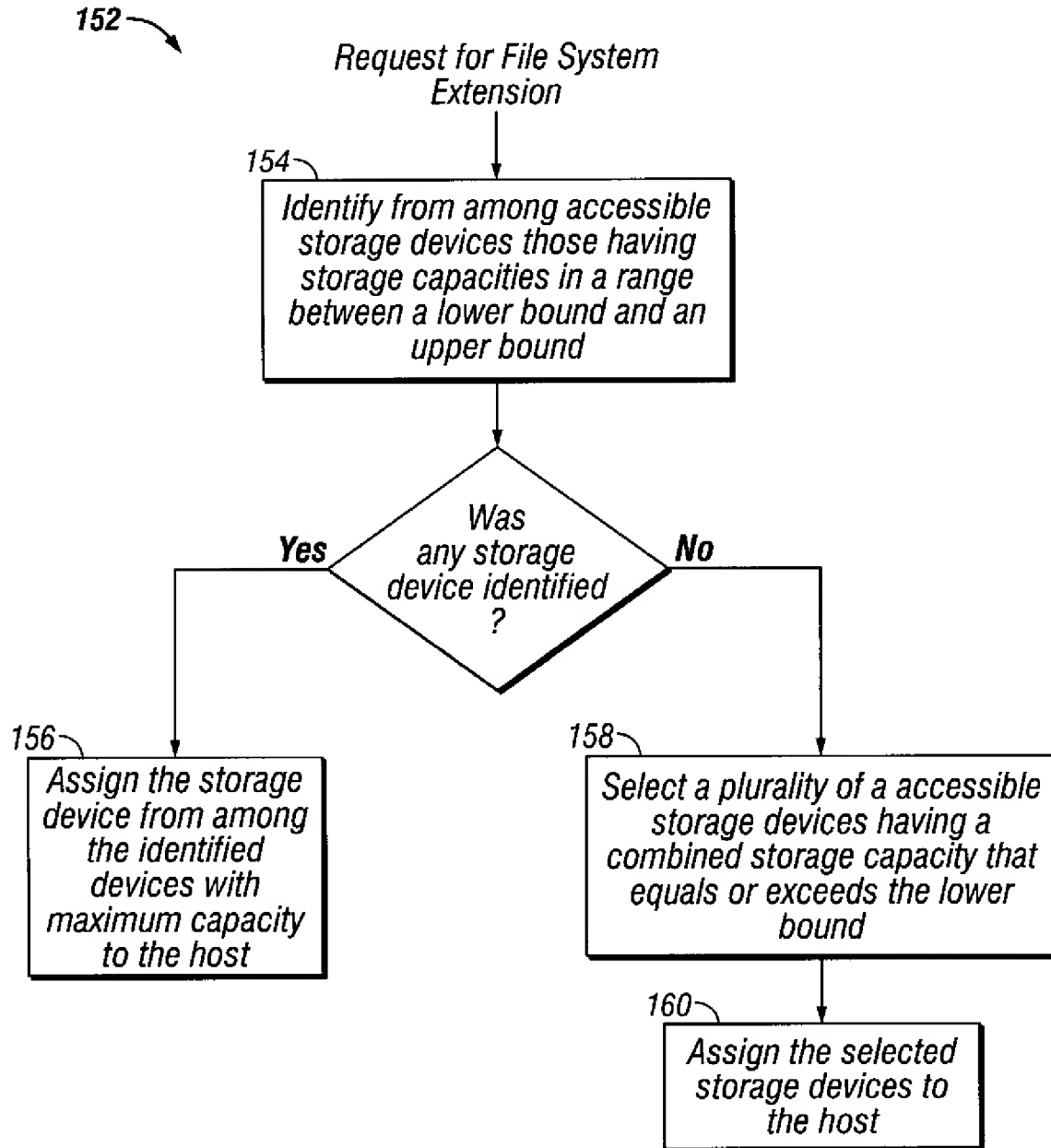
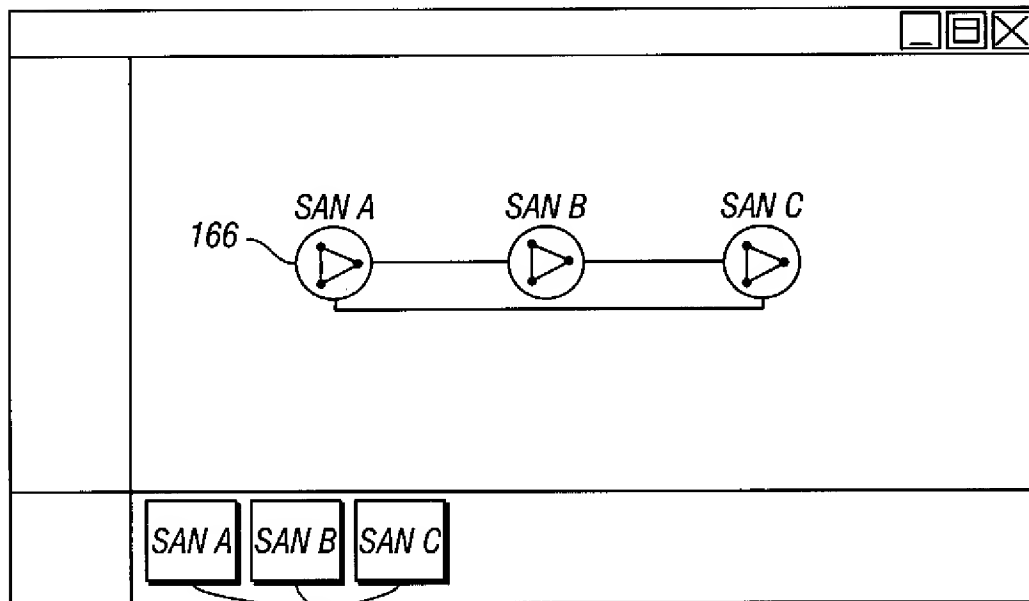


FIG. 27

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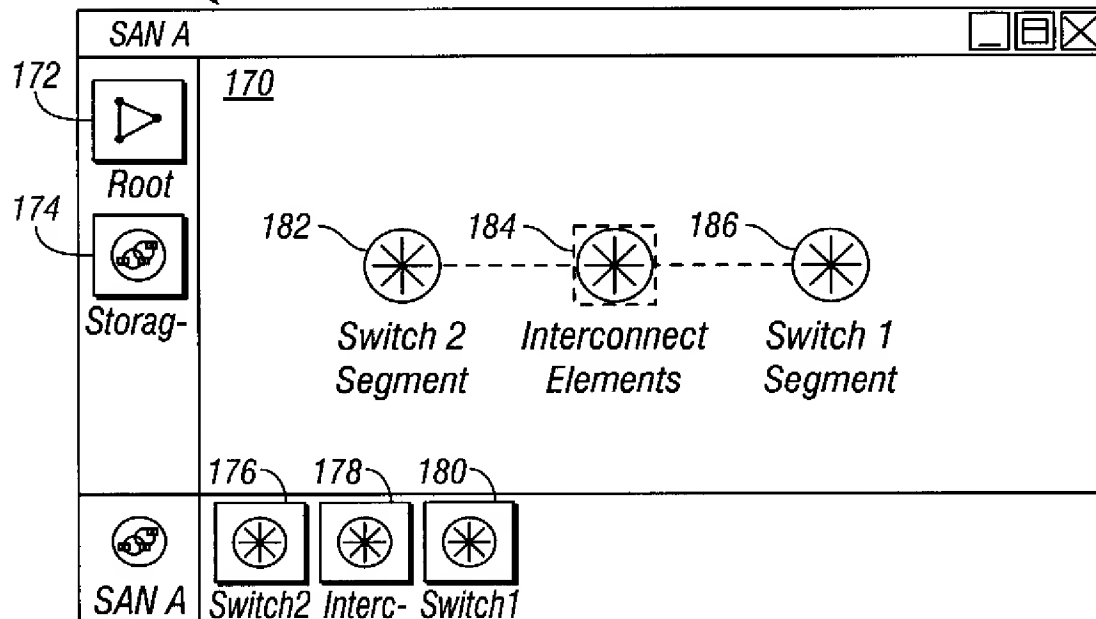
162



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FIG. 28

168



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178

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FIG. 29

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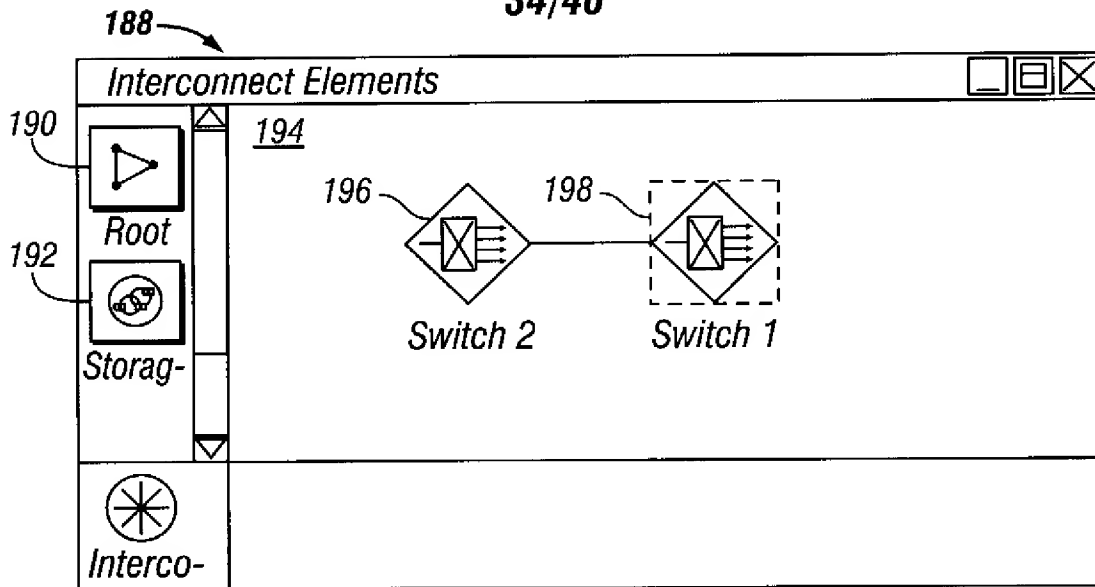


FIG. 30

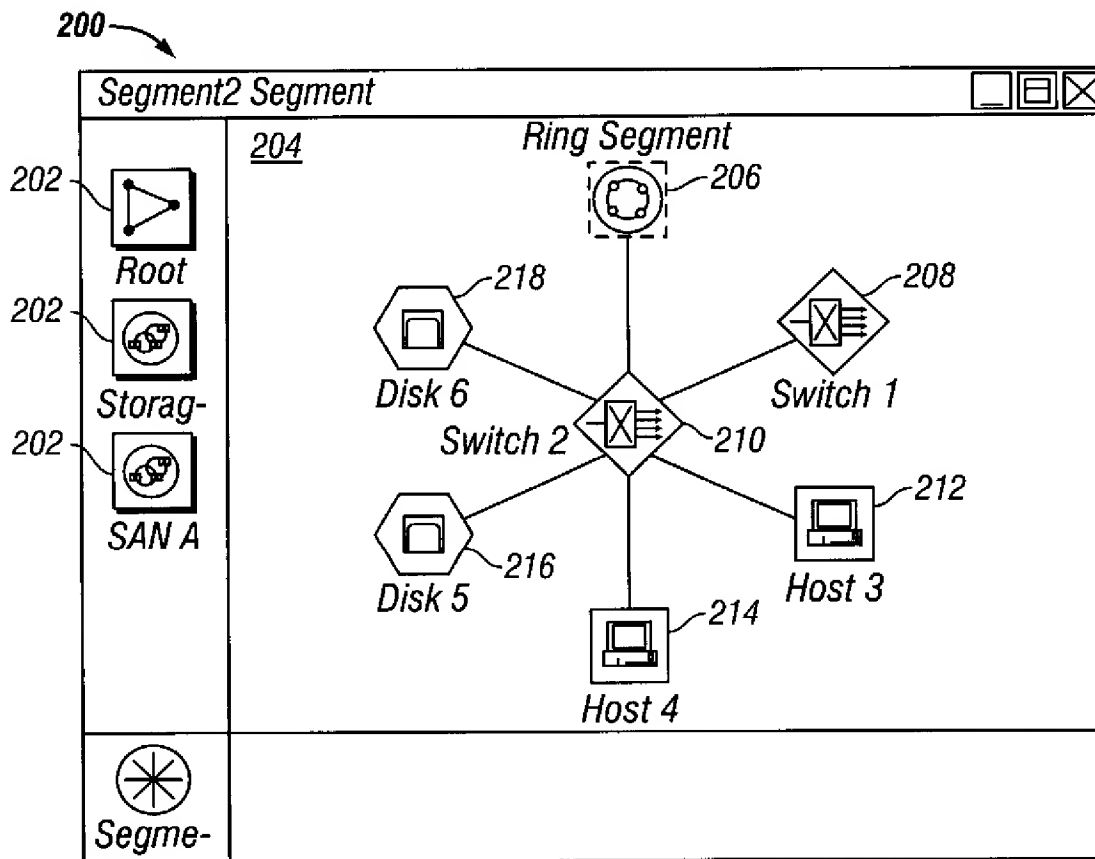


FIG. 31

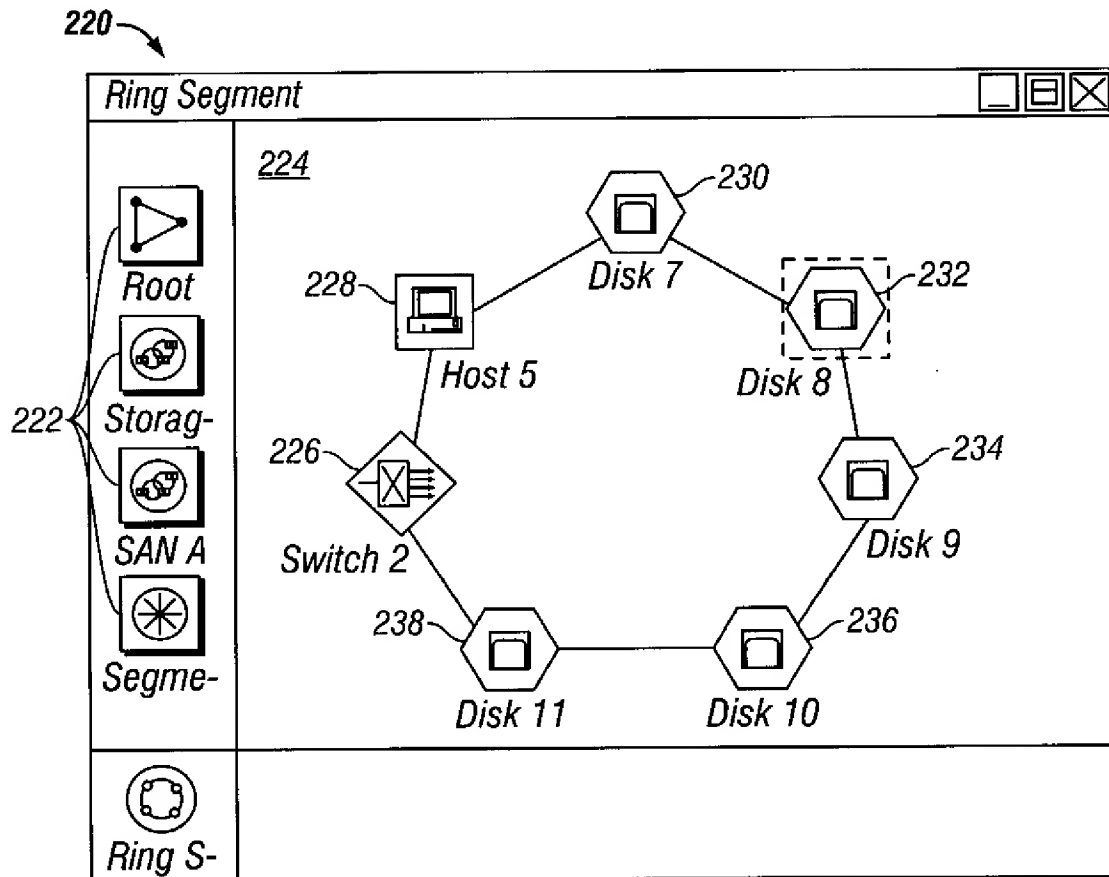


FIG. 32

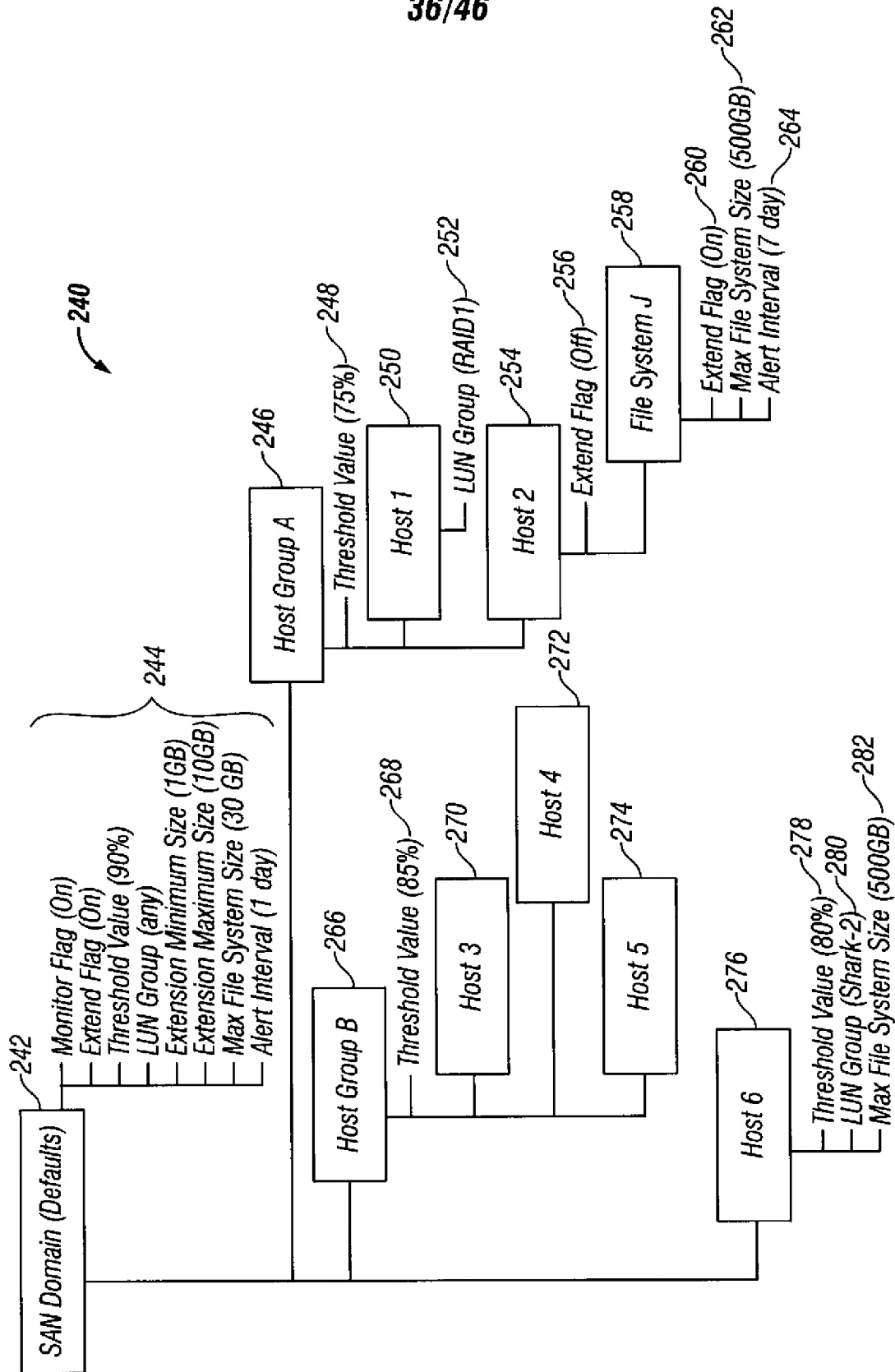


FIG. 33

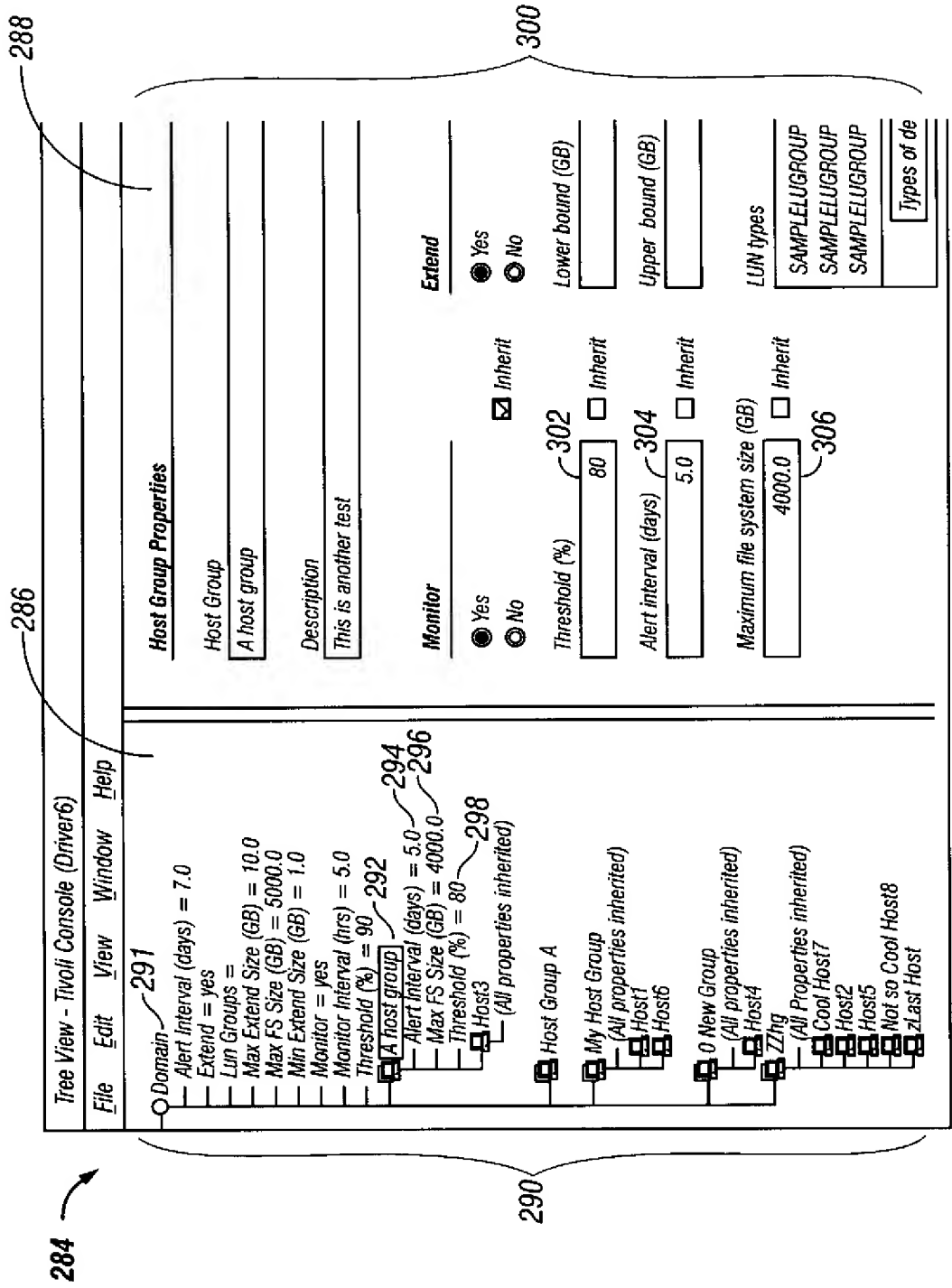


FIG. 34

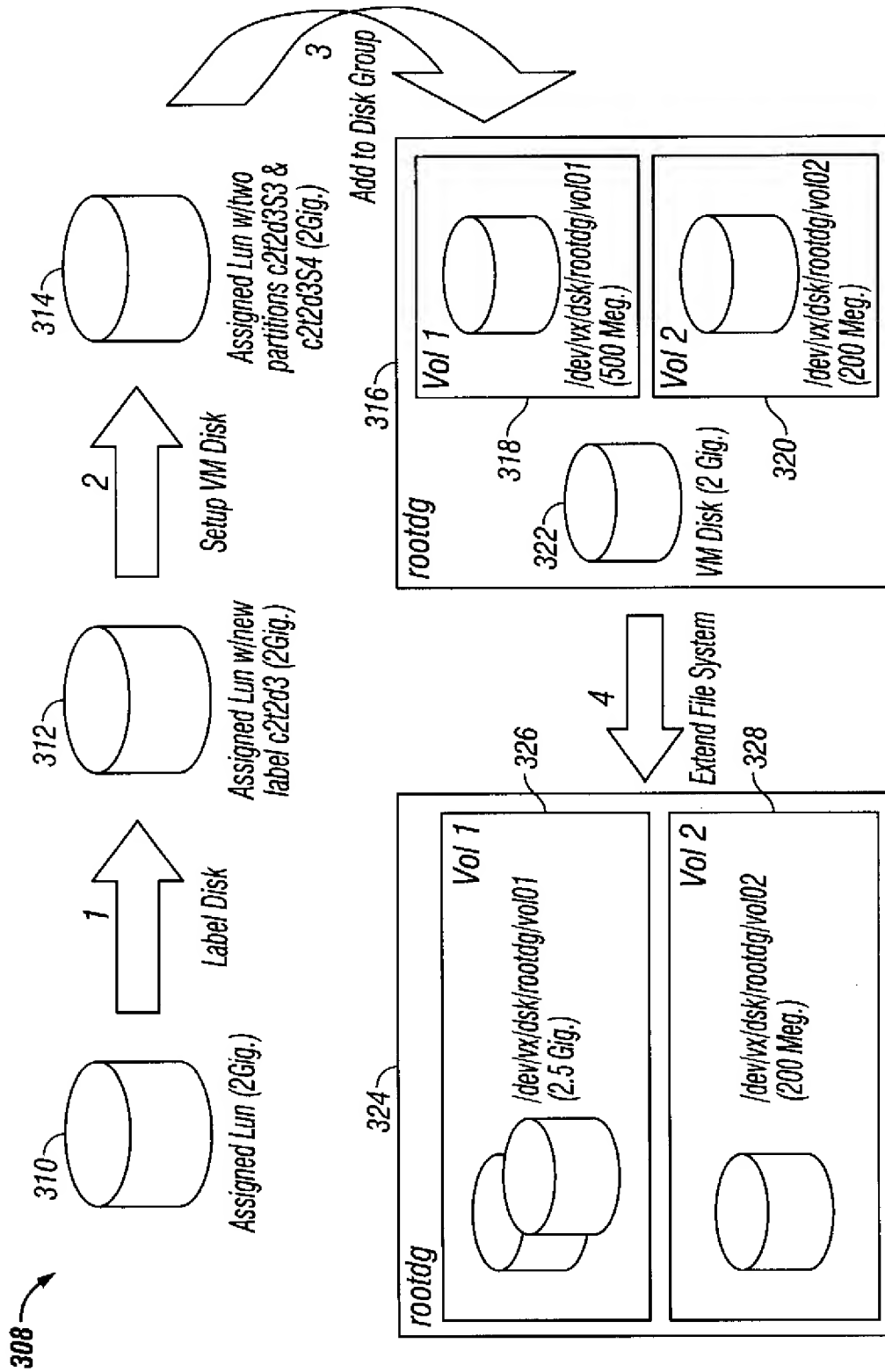


FIG. 35

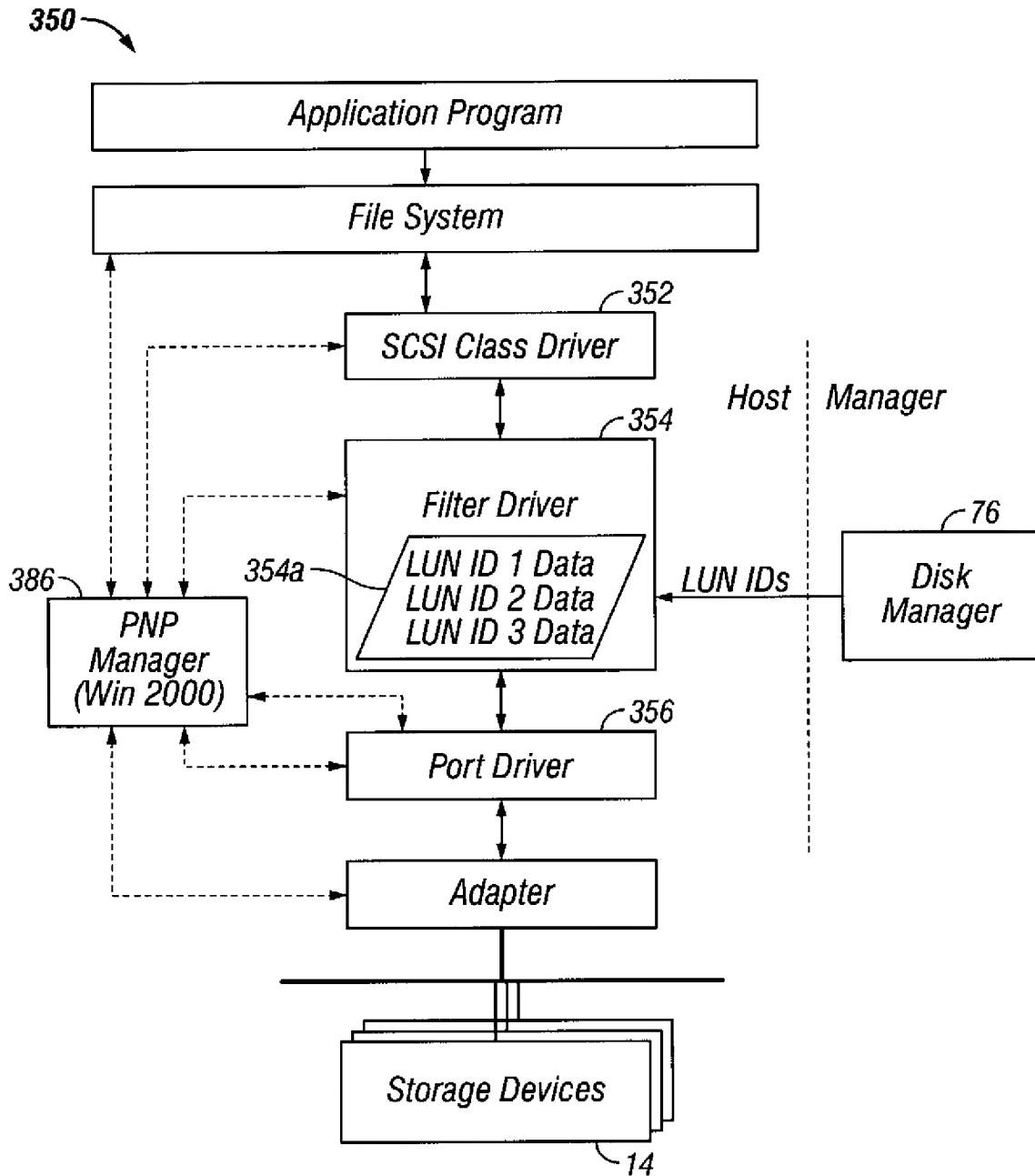


FIG. 36

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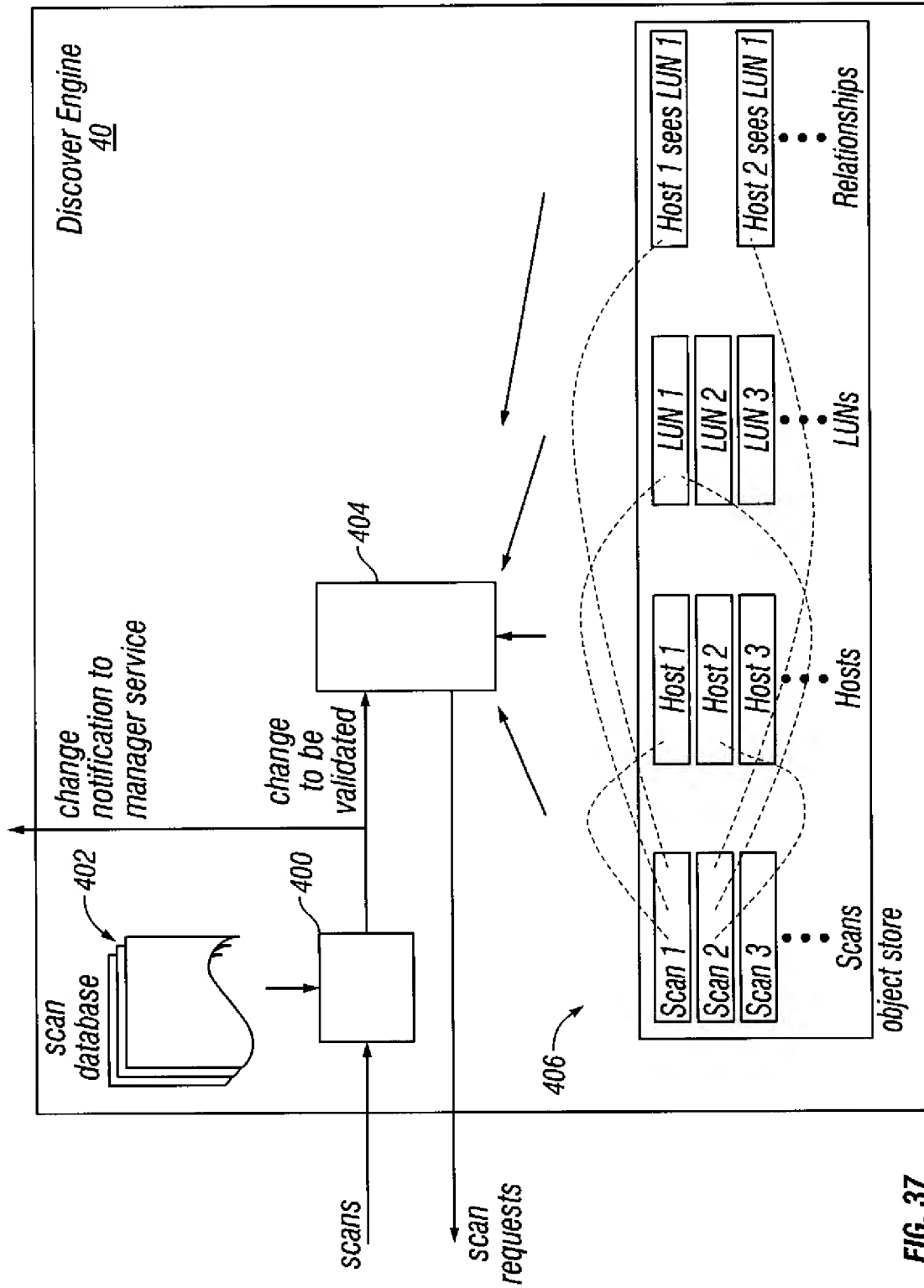


FIG. 37

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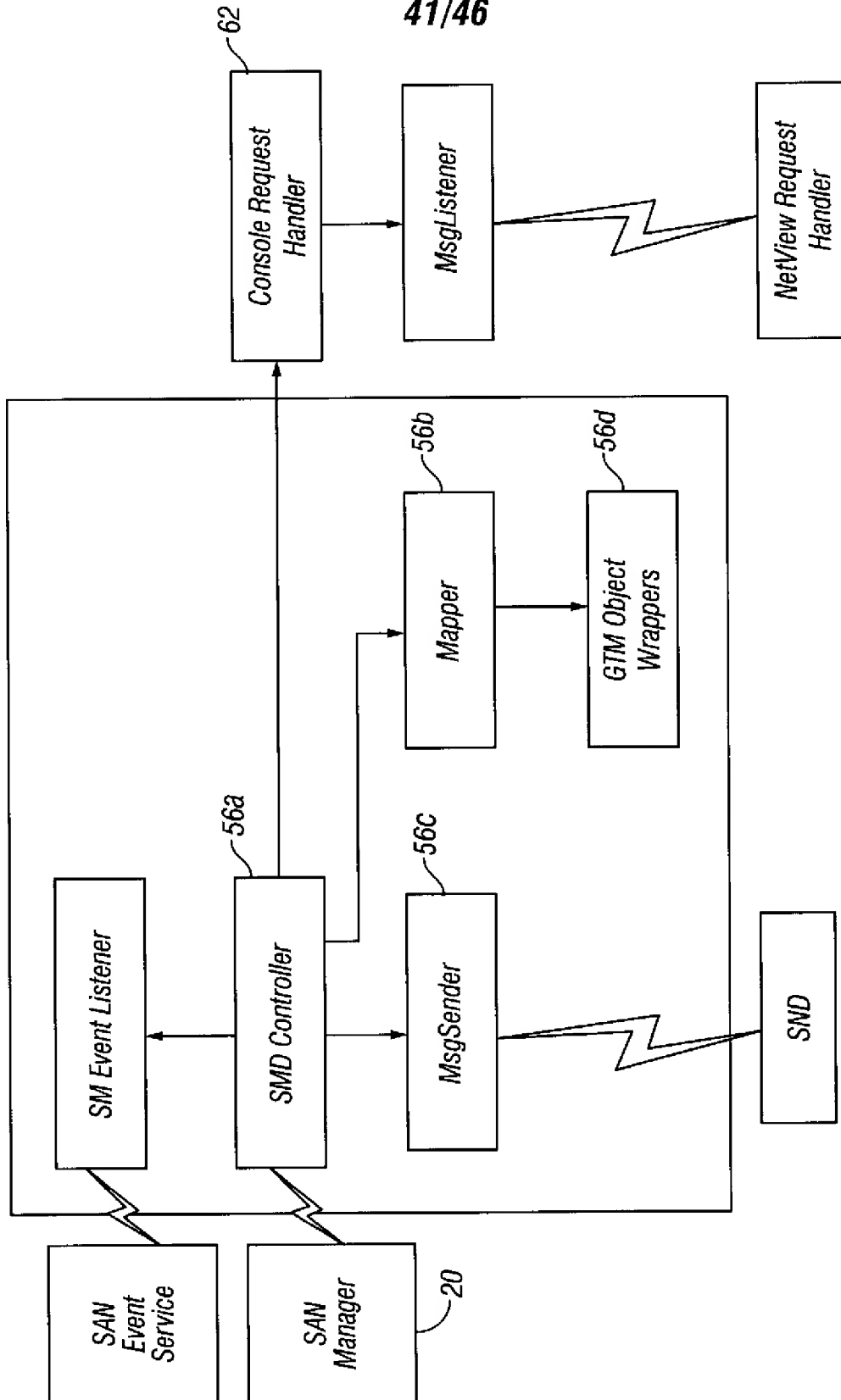


FIG. 38

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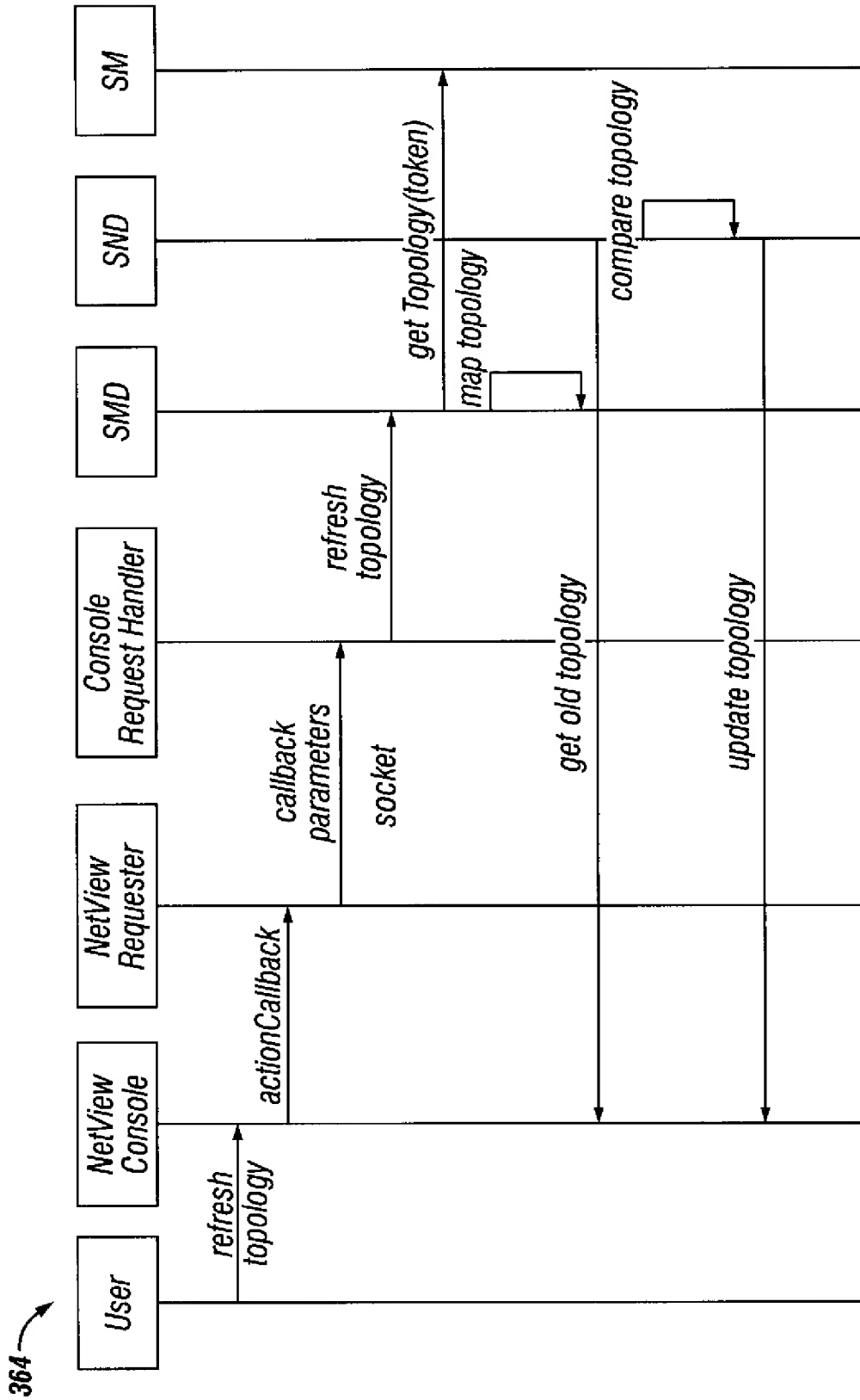


FIG. 39

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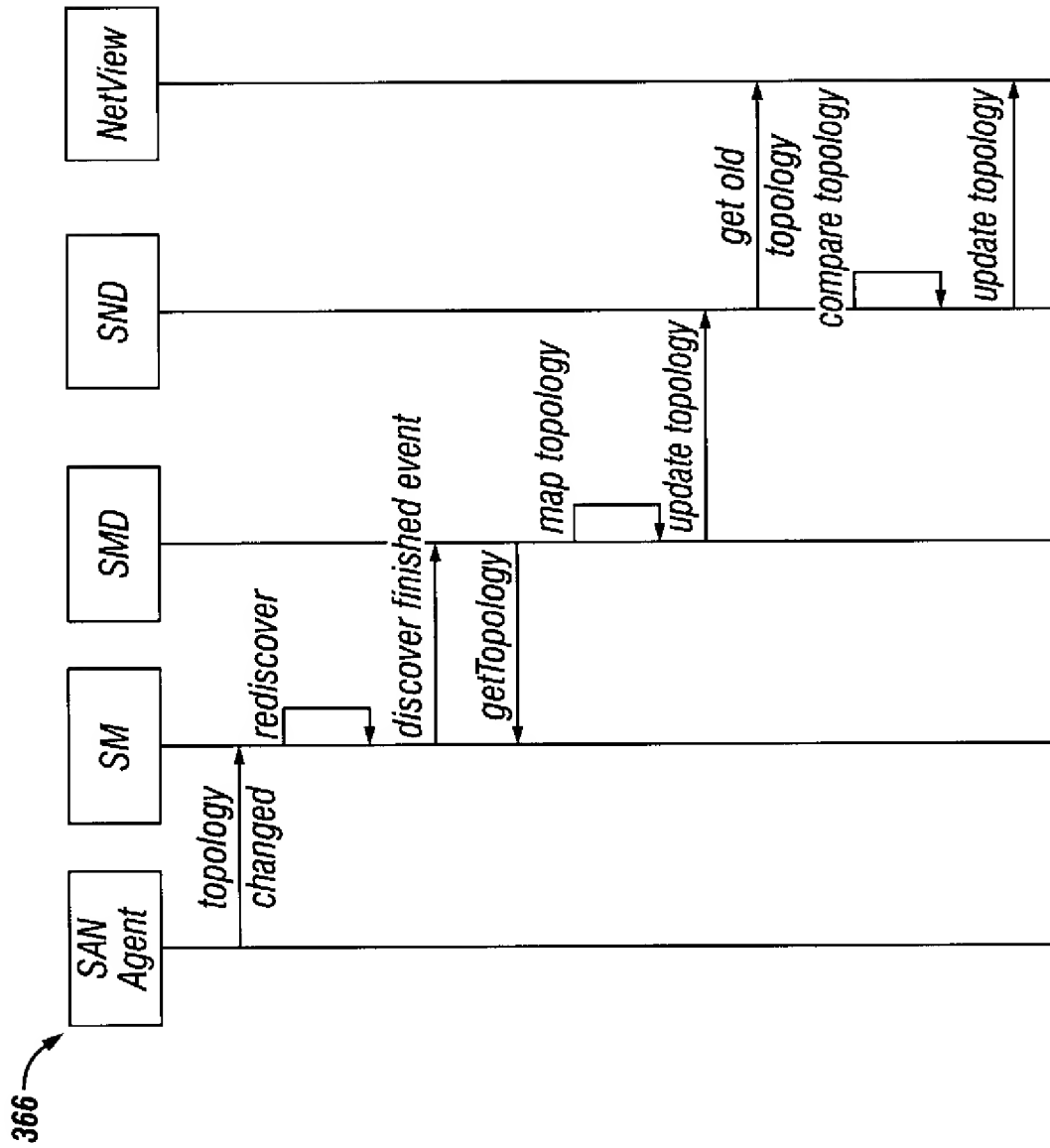
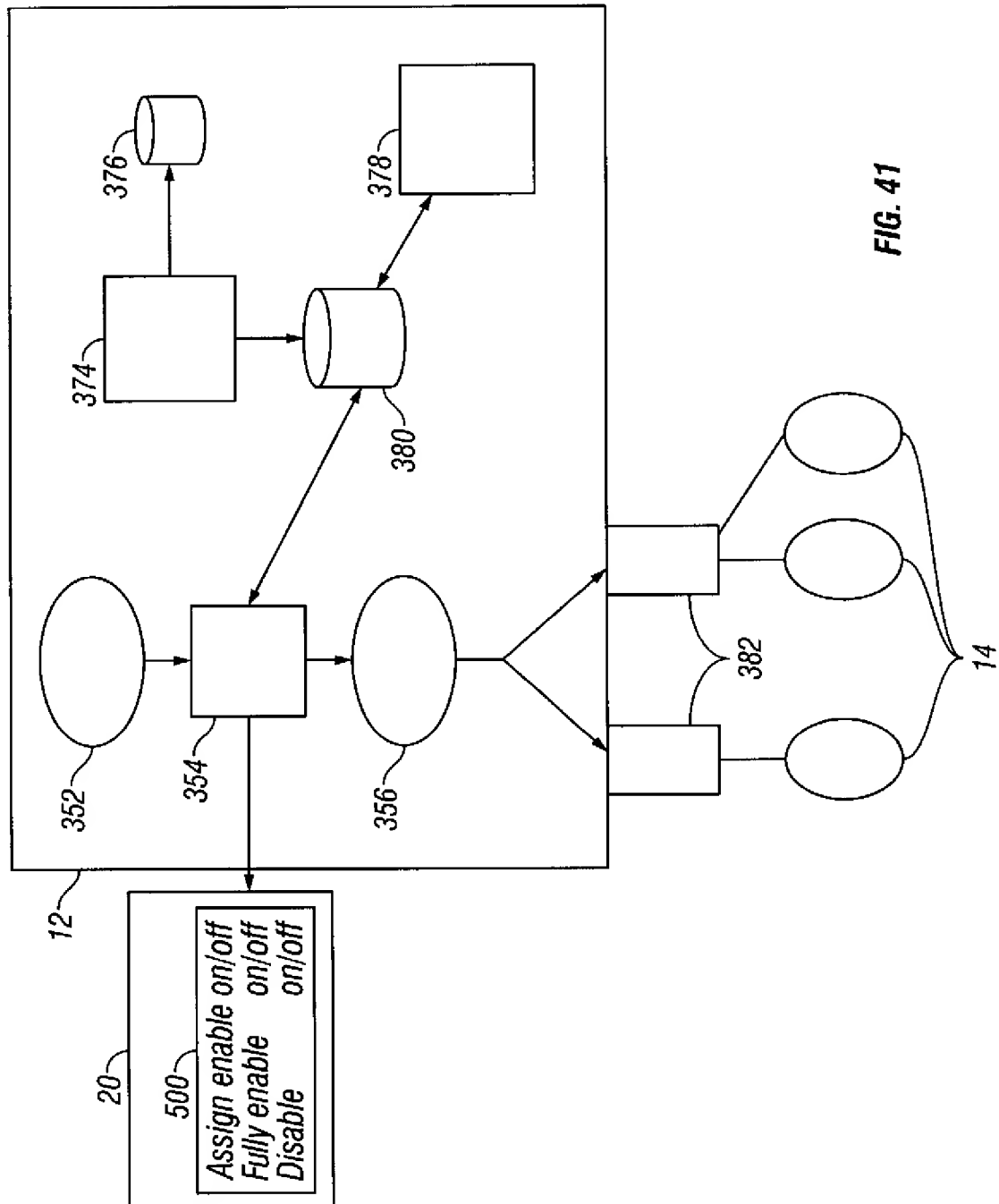
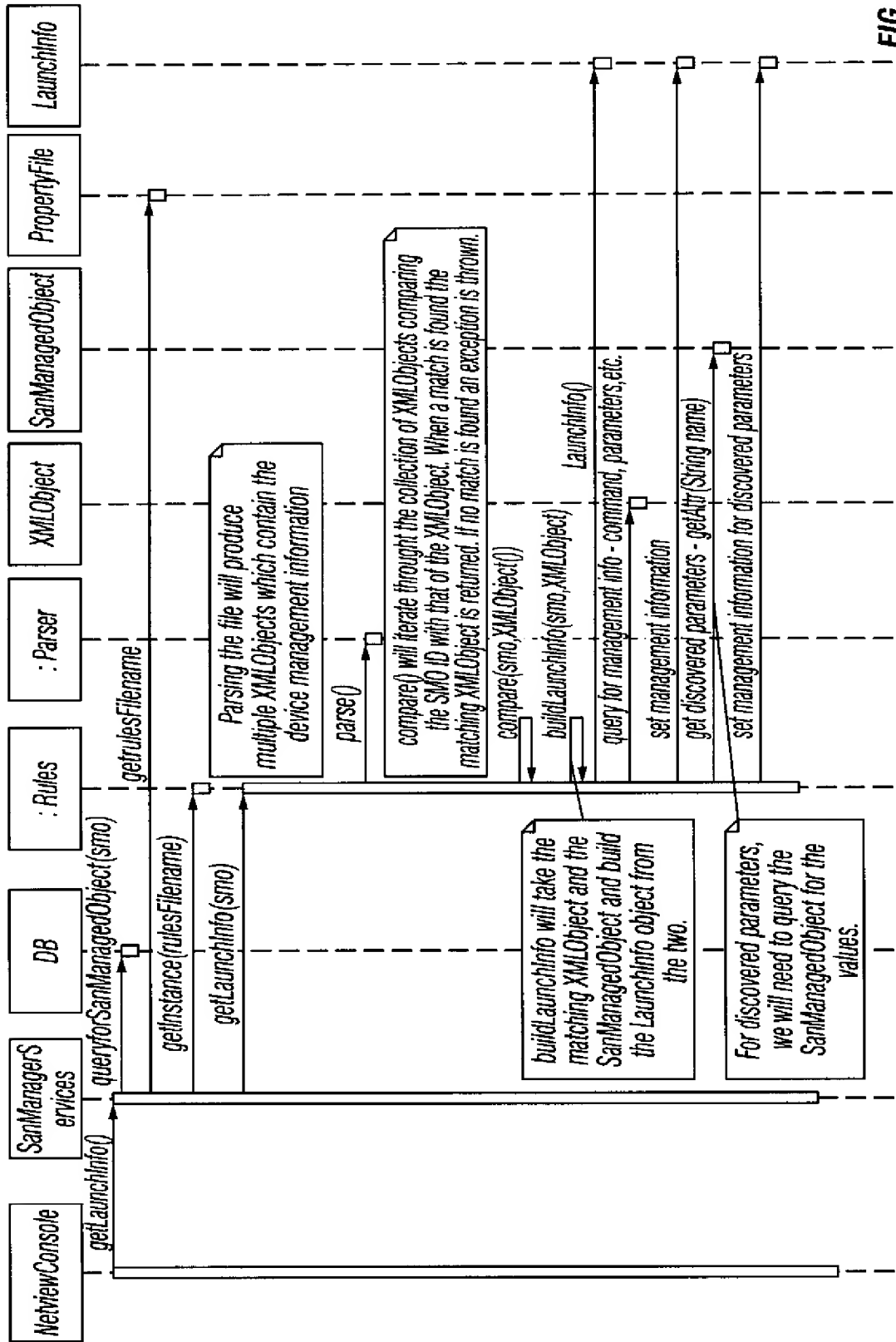


FIG. 40



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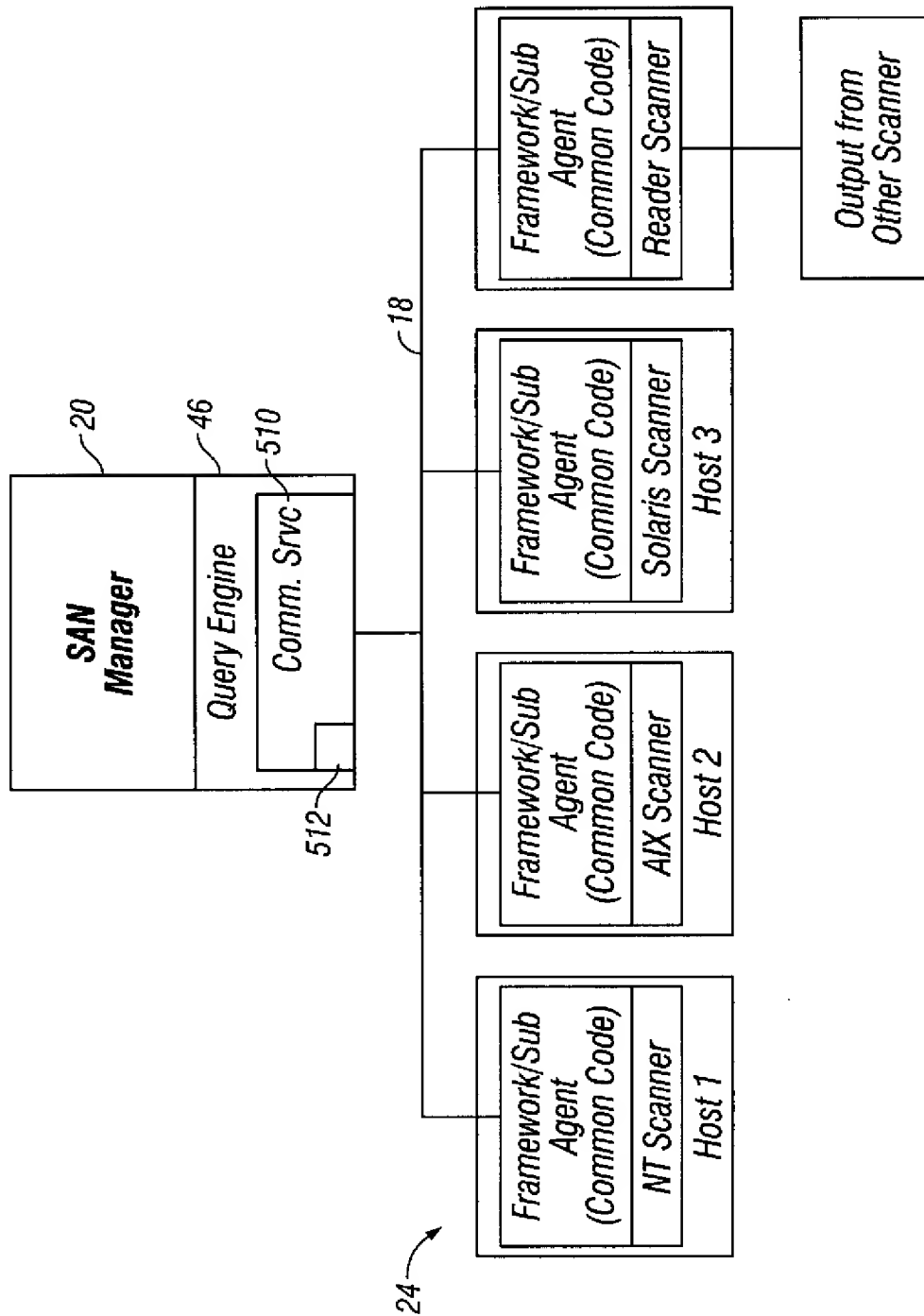


FIG. 43